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**OVERCOMING IMPEDIMENTS
TO YOUTH PARTICIPATION IN HUNTING:
PROGRAM DESIGN EVALUATION**

by

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Human Dimensions Research Unit
Department of Natural Resources
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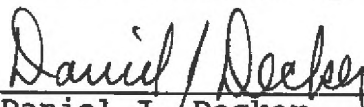
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JOB DURATION: 1 July 1989 - 30 June 1992

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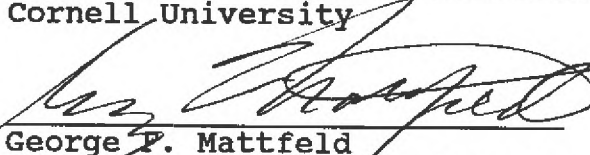


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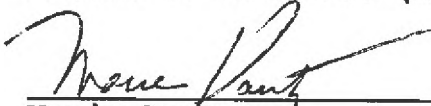


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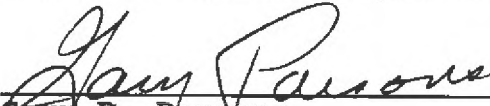
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This publication is part of a series of reports resulting from investigations dealing with public issues in the management of wildlife, fish, and other natural resources. The Human Dimensions Research Unit (HDRU) in the Department of Natural Resources at Cornell University is a nationally-recognized leader in the study of the economic and social values of wildlife, fish, and other natural resources and the application of such information in management planning and policy. A list of HDRU publications may be obtained by writing to the Human Dimensions Research Unit, Department of Natural Resources, Fernow Hall, Cornell University, Ithaca, NY 14853.

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OVERCOMING IMPEDIMENTS TO YOUTH PARTICIPATION IN HUNTING: PROGRAM DESIGN EVALUATION

INTRODUCTION

This is the third in a series of reports outlining progress in and evaluating a New York State Department of Environmental Conservation (DEC) pilot program intended to overcome the impediments to hunting participation by young graduates of DEC's Hunter Education Courses (HEC). The purposes of this report are to: (1) summarize progress to date in the development of the pilot program and (2) present an evaluation of program development efforts for the pilot program.

Background and impetus for the development of a pilot program were described in detail in Pomerantz and Decker (1986) and Enck et al. (1988). Briefly, hunting participation has been declining recently in New York State as indicated by declining license sales and declining HEC enrollment. Brown et al. (1987) suggested that without programmatic intervention by DEC, the decline in hunting participation was likely to continue.

To develop a potentially successful pilot program to address the declining trend in hunting participation, a conceptual model was needed on which to base the pilot program. In turn, development of the conceptual model involved identifying and examining the factors most likely to influence whether an individual participates in hunting. Concentrated effort was placed on youth participation in hunting because youth ≤ 16 years of age represent about one-half of all HEC participants annually (Purdy et al. 1986).

A conceptual model was developed by the Human Dimensions Research Unit (HDRU) at Cornell University from a combination of moral and cognitive development theories, innovation-adoption theory (these theories were described in detail by Pomerantz and Decker [1986]), and empirical evidence from previous research by HDRU (e.g., Decker et al. 1984, McCarty 1985, Purdy et al. 1985) and others (e.g., Applegate and Otto 1982).

DESCRIPTION OF THE CONCEPTUAL MODEL

Innovation-adoption theory (Rogers and Shoemaker 1971) provides a framework that describes changes in an individual's participation in an activity. The theory suggests that an individual passes through stages of participation from general awareness of the activity, to developing an interest in it, to trying it, to continuing participation over time. An individual also may stop participation and begin again later, or he/she may drop out altogether (Decker and Purdy 1986).

Several factors may influence an individual's progression (or regression) from stage to stage (Table 1). HDRU has identified 2 factors that are paramount influences on a youth's participation in hunting--**hunting apprenticeship experiences** and **social support for hunting**. The relationships between these factors and an individual's stage of hunting adoption, or likelihood of continuing to hunt over time, form the conceptual model which is the foundation for the pilot program (Figure 1).

Table 1. Factors that may influence an individual's decision to participate in hunting.

Access to land on which to hunt
 Anti-hunting sentiment
Family and peer support for hunting
 Game abundance
 Habitat conditions
Hunting apprenticeship experiences
 License costs and types
 Complexity of regulations
 Cost and availability of equipment

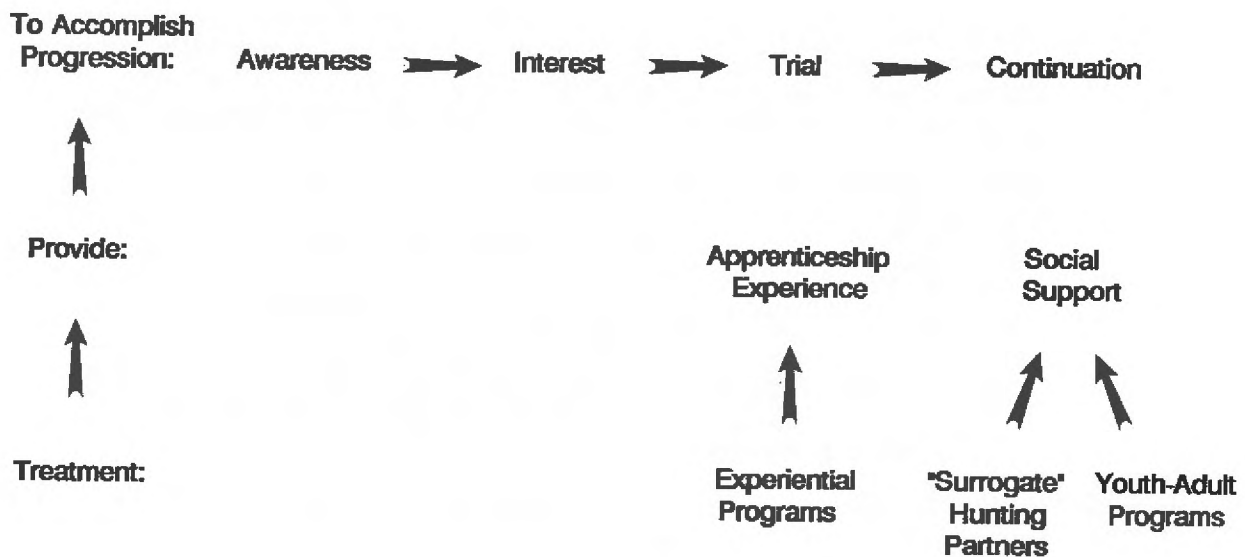


Figure 1. Model for a pilot program to address the decrease in hunting participation that has occurred in New York State since 1970. (From Pomerantz and Decker 1986.)

Apprenticeship

In the context of the pilot program, the definition of apprenticeship experiences is:

a set of pre hunting (i.e., prior to legal participation in hunting) or early hunting experiences over time with a personally significant person serving as a role model or mentor for hunting.

Apprenticeship experiences encompass several aspects that are important to consider for the development of the pilot program:

- (1) multiple hunting experiences are required
- (2) experiences may or may not include handling firearms
- (3) small maximum group size (e.g., 2 apprentices per master hunter)
- (4) apprenticeship experiences involve the total experience from planning and preparation through the time spent afield to reminiscing about the hunt (including cleaning firearms and game, eating game meals, etc.)
- (5) development of a role modeling or mentoring relationship
 - (a) pairing of master hunters and apprentices of the same sex
 - (b) development of trusting relationship
 - (c) assimilation of ethical behavior
 - (d) assimilation of hunting knowledge and skills
 - (e) identification of an amicable "end" to the relationship
- (6) development of multiple hunting satisfactions including appreciative-related, affiliative-related, and achievement-related satisfactions.

These aspects may be considered "criteria" for program development, and provide a basis for evaluating program development.

Social Support

Social support is the second driving force which influences an individual's participation in hunting. In the context of the pilot program, the definition of **social support** is:

familial and peer support of hunting participation indicated by those who positively influence or actually initiate an individual into hunting and expressed through their companionship in or their encouragement for a broad array of hunting activities.

A social support system has a combination of 3 kinds of key people: (1) influencers, (2) initiators, and (3) companions. Influencers include those individuals, both family and nonfamily, whose positive beliefs, values, and attitudes about hunting are transmitted to an individual over time and lead to his or her development of an interest in hunting. Initiators include those family and nonfamily persons who facilitate an individual's entry into hunting. Companions include those who provide camaraderie during activities before and after the hunt as well as when afield.

As with apprenticeship experiences, several aspects of social support are important to consider for the development of the pilot program, and against which program development can be evaluated:

- (1) the most effective social support is provided throughout the total experience from planning and preparation through the field experiences to reminiscing about the hunt (including cleaning firearms and game, eating game meals, etc.)
- (2) include established or specially developed peer support (i.e., friends)

- (3) capture family interest throughout program implementation including planning and reminiscing even if the family does not participate directly in the time spent afield.

Differentiation Between Apprenticeship and Social Support

We recognize that these definitions of apprenticeship experiences and social support appear to overlap. That is, almost any activity could be conceived to be an apprenticeship experience or social support **depending on how the activity is carried out.** Apprenticeship activities should not be thought of only as 1-on-1 experiences where there is consistent interaction between the master hunter and the apprentice(s), and social support should not be thought of only as group activities.

The difference between apprenticeship and social support is that social support activities must (to meet the operational definition) involve continuous, interactive support for the apprentice's participation in hunting from persons such as same-age friends, family members, or other hunters in addition to the master hunter. By definition, these persons are the ones who influence the apprentice's beliefs and attitudes regarding hunting, introduce the apprentice to hunting, and provide companionship during all phases of the hunting experience from preparation, through the time spent afield, and while reminiscing about hunting experiences. For these reasons, attendance at a club meeting or other public activity does not necessarily constitute an example of social support unless the apprentice is actively integrated into the event. Thus, the social support

aspect of the pilot program ultimately should involve many persons in addition to the master hunter and the apprentice(s).

EVALUATION PROCEDURE FOR THE PILOT PROGRAM

A "formative" evaluation approach (Kraus and Allen 1987) is being used to evaluate the pilot program. Such an approach provides a constant review and assessment of program effectiveness and provides feedback that can be used to modify or develop new program strategies or approaches as necessary during program implementation. This type of evaluation approach helps to make a program successful rather than merely determining success or failure when the program is completed. Through a comprehensive approach, an informed decision can be made about why a program succeeded or failed.

Evaluation of the pilot program being developed by the DEC task force is intended to be a 4-stage process. The 4 stages are: (1) theory application evaluation, (2) program design evaluation, (3) program implementation evaluation, and (4) program outcome evaluation. The purposes of each of these 4 stages of evaluation were described in detail in Enck et al. (1988).

Stage 1, theory application evaluation, has been completed and was described in Enck et al. (1988). That first phase of the overall evaluation procedure identified that the task force developing the pilot program did not fully understand the theoretical underpinnings on which the pilot was to be based. Of

special concern was the identified need to provide the task force with a sound understanding of the definitions of apprenticeship and social support. These are 2 of the most important elements of the conceptual model on which the pilot program is to be developed. Without an understanding of how to meet the operational definitions of these important model elements, there could be little expectation of developing a successful program.

The theory application evaluation reported in Enck et al. (1988) was successful in providing feedback to the task force members relative to modifying their initial conceptualization of how the pilot program could be developed to increase its probability for success. Use of that evaluative information led to a greater awareness and understanding of the underlying conceptual framework for the program. The task force was then able to modify the plan for the pilot program, focusing better on the important elements of the underlying model and adjusting the time frame to improve the opportunity for success.

Although the first step of the evaluation procedure provided feedback for developing the pilot program, additional, continuous feedback is needed to ensure sound operationalization of the plan. The second stage of the evaluation procedure, the program design evaluation, is intended to provide feedback after the task force develops a draft of the operational plan for the pilot program, but before implementation. The remainder of this report describes the program design evaluation process and outcome.

EVALUATION STAGE 2: PROGRAM DESIGN EVALUATION

As stated, program design evaluation provides feedback after most of the operational plan for the pilot program has been completed, but before the pilot is implemented. Another important function of this phase of the evaluation is to facilitate final development of the pilot program design by identifying confusing or incomplete aspects of the design during its development. Thus, this process is interactive and intended to improve efficiency by identifying potential impediments before the design is completed.

Many persons have been involved with the program design evaluation. They were selected for their expertise in examining critically the degree to which the conceptual model has been operationalized by the proposed pilot program and the degree to which the proposed plan is logistically feasible and follows DEC policy. These reviewers included both people who have, and have not, been closely involved with the development process.

Involvement of an evaluator on the task force provided both a mechanism and an opportunity for the continuation of the theory application evaluation described in Enck et al. (1988) and the initiation of program design evaluation. This opportunity for an integrative approach to the evaluation procedure (i.e., with an evaluator on the task force) led to the early determination that several important aspects of the program design were incomplete or lacking altogether. Discussions between the evaluator and other members of the task force were inadequate in resolving all

identified concerns. Thus, a more formalized approach to program design evaluation was necessary, and a formal methodology was developed.

Methodology Used In The Program Design Evaluation

The methodology for conducting program design evaluation is described here for several reasons. First, documentation of the methodology is important so that the procedure may be repeated again for this program if necessary. Second, such a description allows all persons involved with the pilot program to gain an understanding of how this phase of the overall evaluation was conducted. Third, this type of evaluation methodology, although simple, may be useful in other applications.

The formalized program design evaluation has had 3 main components. The first component was an iterative process that consisted of repeated review of the planning document (i.e., program design) by an evaluation "team" and repeated revision by the task force. The second component was a self-assessment of the planning document by the task force through use of a questionnaire developed by HDRU. The third component is this report which uses a combination of methods to conduct a "final" program design evaluation. Each of these components is discussed below.

Iterative Review and Revision.--

A team approach to the evaluation was used during the iterative process because a complete review of the planning document required different types of expertise. It was important to include members of the task force on the team because of their intimate knowledge of the document, and it was important to include external reviewers to ensure an independent evaluation was conducted.

The initial iteration of the program design evaluation was conducted in January 1989. The task force produced an outline of the operational plan for the pilot program, and a group of evaluators met to assess the document. These evaluators included the task force facilitator, the HDRU evaluator who had been a member of the task force, and a DEC administrator.

The task force facilitator was included because he had the greatest knowledge of the degree to which the other task force members understood the conceptual foundation for the pilot program, and he was the most appropriate person to communicate the results of the evaluation process back to the other task force members. The HDRU evaluator had the greatest knowledge of the conceptual foundation on which the pilot program was to be based. He also had knowledge of empirical evidence which supported the conceptual foundation and which could be used in program development efforts. The DEC administrator was involved for many reasons including his ability to assess whether the

pilot program conformed to DEC policy and whether the time frame for the pilot was realistic.

Although no formal evaluation criteria had been developed prior to the meeting of this evaluation "team," the following set of 8 questions that appeared in Enck et al. (1988) was used as a general guide:

- (1) Have all elements of the conceptual model been addressed?
- (2) Have all elements of the conceptual model been addressed adequately?
- (3) Have explicit program objectives been identified?
- (4) Does the program design use the model elements to meet the program objectives?
- (5) Is the amount of effort appropriate to meet the program objectives?
- (6) Can the program be accomplished in the time frame allowed?
- (7) Is the program logistically feasible?
- (8) Does the program conform to DEC policy?

Discussions at evaluation meetings held in January and February 1989 resulted in the addition of the following evaluation question:

- (9) Does the description of the pilot program contain enough detail to inform adequately the potential readers about the procedures that will be used in the operationalization of the pilot program?

Several iterations of this review and revision process were conducted during 1989. After each review, the task force made revisions to the planning document (NYSDEC 1990) (Appendix A) that improved its overall usefulness and completeness. For

example, the task force included definitions of apprenticeship (NYSDEC 1990:3) and social support (NYSDEC 1990:6) after it was identified that they were necessary but absent components of early drafts of the planning document. Also, sections were included in the planning document that described the need for support from DEC, New York State Conservation Council (NYSCC), and instructors of HEC's (NYSDEC 1990:11-12) after it was identified that the pilot program could not be implemented without support and commitment from these groups.

Although this process enhanced the quality and usefulness of the planning document, it was inefficient (i.e., slow and tedious) and increasingly ineffective. In addition, it became evident that the task force had been working so closely with the document that they had difficulty identifying areas needing improvement. Another strategy was needed to help the task force identify ways to improve the planning document. That strategy involved use of a self-assessment questionnaire.

Self-assessment Questionnaire.--

HDRU staff developed a questionnaire to be used by task force members to assess the completeness and adequacy of the planning document. The questionnaire contained questions about specific aspects of the planning document including: the purpose of the planning document, who the potential audiences were for the planning document, whose program the pilot was, and what the roles of the supporting organizations were. Questions on the

questionnaire were developed from the 9 evaluation questions outlined above and from additional aspects that had been identified during the iterative evaluation process (e.g., purpose of the document, potential audiences, roles of supporting organizations, etc.).

Task force members were given the questionnaire at a meeting in November 1989. Those who completed it indicated that they gained a better understanding of the concerns raised by the evaluators through the use of this evaluation technique. The task force identified inconsistencies in the document, and found some areas of confusion regarding the purpose of the document and the audience to whom it was directed.

Revisions to the planning document (i.e., program design) made because the task force completed the self-assessment questionnaire resulted in the most complete draft of the planning document to date (NYSDEC 1990; attached to this report as Appendix A). This draft is addressed formally below as part of the program design evaluation.

FINAL PROGRAM DESIGN EVALUATION

A formal end to program design evaluation is needed before program implementation can proceed with the knowledge that the pilot has the greatest opportunity to succeed. The latest draft of the planning document (Appendix A) is compared against several evaluation criteria in this "final" program design evaluation.

First, the operational definitions of apprenticeship and social support proposed in the planning document are compared against the important characteristics of apprenticeship and social support drawn from the theoretical foundation and empirical evidence available about these social phenomena (Enck et al. 1988). Second, the proposed pilot program design is assessed with the evaluation questions outlined on page 12 of this report (Appendix B). Third, the self-assessment questionnaire is used to evaluate additional aspects of the pilot program design (Appendix C).

Comparison Of The Pilot Program Design With Important Characteristics Of The Model Elements

The operational definition of apprenticeship proposed in the program design compares well with the definition of apprenticeship derived earlier and described on page 4 of this report (Table 2). However, the degree to which apprenticeship experiences are provided in the pilot program will depend greatly on the abilities of the master hunters selected for program. The training workshops for master hunters should be used to ensure that the master hunters understand their roles and what is required of them.

The proposed operationalization of social support described in the design of the pilot program seems to compare well with the definition of social support as defined on page 5 (Table 3). However, similar to the operationalization of apprenticeship

Table 2. Important characteristics of apprenticeship suggested by theoretical and empirical evidence compared with the operationalization of apprenticeship proposed for the pilot program being to address impediments to youth participation in hunting.

Characteristics of Apprenticeship Suggested by Theoretical and Empirical Evidence	Proposed Operationalization of Apprenticeship
1. Multiple hunting experiences.	1. Master hunters and apprentices must meet at least once a month (for a total of 15 meetings) over a 12-month period. Multiple hunting experiences are required.
2. May or may not include of firearms.	2. Non-hunting experiences should occur throughout the year, and at least 1 non-hunting activity before the apprentice is taken on a hunt.
3. Small maximum group size.	3. Master hunters will be paired with only 1 or 2 apprentices.
4. Involves total hunting experience from planning to time spent afield to reminiscing and other post-hunt activities.	4. Master hunters and apprentices are encouraged to do activities that encompass the total hunting experience.
5. Development of mentoring relationship: <ul style="list-style-type: none"> a. pair master hunters and apprentices of same sex b. develop trusting relationships c. assimilation of ethical behavior d. assimilation of hunting knowledge and skills e. identification of an "end" to the relationship. 	5. Apprentices will be paired with master hunters of the same sex or with husband/wife teams; development of trusting relationships, assimilation of ethical behavior, and assimilation of hunting knowledge and skills will depend on hard work by the master hunter; end of relationship will be a recognition dinner.

Table 2. Continued.

- | | |
|--|--|
| 6. Development of multiple hunting satisfactions (i.e., achievement, affiliative, appreciative). | 6. Development of multiple satisfactions depends on how the master hunters operationalize the pilot. |
|--|--|

Table 3. Important characteristics of social support suggested by theoretical and empirical evidence compared with the operationalization of social support proposed for the pilot program to address impediments to youth participation in hunting.

- | | |
|--|---|
| 1. Involves total hunting experience from planning to time spent afield to reminiscing and other post-hunt activities. | 1. Master hunters and apprentices are encouraged to do activities that encompass the total hunting experience. |
| 2. Includes established or specially developed support (i.e., friends). | 2. Includes the opportunity to use whatever established hunting support exists and encourages development of new support networks; the degree to which this happens is directly related to the efforts of the master hunters. |
| 3. Capture family interest throughout implementation (i.e., including planning and reminiscing) even if family members to not participate directly in the time spent afield. | 3. Includes the opportunity to involve family members in all activities if they desire; the degree to which this happens is directly dependent on the efforts of the master hunters. |

proposed in the design of the pilot program, the degree to which social support is provided in the pilot will depend directly on the efforts of the master hunters.

Although the proposed operationalization of apprenticeship and social support seem to compare well with the definitions of these key program elements, the program design does not distinguish between the 2 very well. A distinction is important because of the experimental comparisons that will be made between treatment groups in the pilot¹. The workshops provided for master hunters will need to make this distinction and will need to provide detailed training, especially for master hunters who are to provide social support.

Assessment Of The Pilot Program Design With Nine Evaluation Questions

The 9 evaluation questions developed by the evaluation team and outlined on page 12 of this report were used in the second part of the program design evaluation to help assess the completeness and adequacy of the pilot program design described in the planning document (NYSDEC 1990). The assessment was made by examining the planning document relative to each question. Then a decision was made about whether the specific part of the design pertaining to that question was addressed adequately.

¹As described in the design of the pilot program, 1 group of apprentices will be provided with apprenticeship experiences only and another group will be provided with apprenticeship and social support.

Table 4. Summary of an assessment of the pilot program design^a using 9 questions developed by an evaluation team.

Question	Decision outcome
1. Have all the elements of the conceptual model been addressed?	Question is addressed adequately.
2. Have all the elements of the conceptual model been addressed adequately?	Question is not addressed adequately.
3. Have explicit program objectives been identified?	Question is not addressed adequately.
4. Does the program design use the model elements to meet the program objectives?	Cannot determine whether the question is addressed adequately.
5. Is the amount of effort appropriate to meet the program objectives?	Question is not addressed adequately.
6. Can the program be accomplished in the time frame allowed?	Question is addressed adequately.
7. Is the program logistically feasible?	Question is addressed adequately.
8. Does the program conform to DEC policy?	Question is addressed adequately.
9. Does the description of the pilot program contain enough detail to inform adequately the potential readers about the procedures that will be used in the operationalization of the pilot program?	Question is not addressed adequately.

^aFrom NYSDEC 1990 (see Appendix A).

The assessment found that some aspects of the pilot program were addressed adequately in the planning document whereas other aspects could be improved (Table 4). (For a more detailed discussion, see Appendix B.) The aspects that have been addressed adequately tend to be related to the broad framework of the pilot program whereas those that could be improved tend to be important levels of detail that help define the specifics of the pilot program. For example, the 2 important elements identified from the conceptual model (i.e., apprenticeship and social support) are addressed by name in the pilot program design, but how they will be operationalized is not addressed well. Similarly, the time frame for the pilot program has been developed adequately, but the objectives for the pilot program could benefit from refinement.

This part of the evaluation suggests that the pilot program may not obtain the results desired by the program developers because the design has not yet been refined to the point where it provides the greatest opportunity for success. Specific recommendations that can be used to help guide the refinement are presented on page 24. In addition, Table 4 indicates some of the aspects of the pilot program on which the task force may want to concentrate their efforts (see also Table 5). The discussion presented in Appendix B provides a more detailed discussion of each question, how the decision outcome was determined, and in some cases suggestions are provided for improving the design relative to the specific aspect discussed.

Evaluation Of The Pilot Program Design With A Self-assessment Questionnaire

A questionnaire developed by HDRU and administered to external reviewers of the planning document and task force members was used as a third part of the formalized program design evaluation. This part of the evaluation was conducted similar to that described in the previous section about the use of 9 evaluation questions developed by an evaluation team. An assessment was made by examining the planning document relative to each question, and a decision was made about whether the specific part of the program design pertaining to that question was addressed adequately.

Similar to the assessment described in the previous section, use of this questionnaire identified that some aspects of the pilot program design were addressed adequately in the planning document whereas others could be improved (Table 5). A detailed discussion of each question including decisions about design adequacy and suggestions for strengthening the planning document follow after the summary in Table 5.

One important difference between this assessment and that described in the previous section is that the task force members responsible for development of the pilot program completed the questionnaire and helped to determine the decision outcome for each question shown in Table 5. Thus, the questionnaire was useful in helping those responsible for program development assess the completeness and adequacy of the planning document that describes the design of the pilot program.

This assessment shows that several aspects of the design of the pilot program could benefit from further refinement. For example, definitions of the roles of supporting organizations and statements about the expected "pay-offs" of the pilot program would be valuable to the supporting organizations, and these definitions and statements in the planning document would enhance HDRU's ability to conduct the program implementation and program outcome evaluations. The pilot program could become more recognizable and more "marketable" to potential supporting organizations and individuals if a more intuitively understandable title was developed for the pilot program. In addition, having an appointed editor review the planning document which describes the design of the pilot program would help ensure that the level of writing is appropriate and consistent throughout the document.

These aspects of the design of the pilot program and support for the decision outcome for each question shown in Table 5 are discussed in detail in Appendix C. Table 5 (see also Table 4) indicates aspects of the pilot program on which the task force may want to concentrate their efforts. Specific recommendations for enhancing the design of the pilot program are made in the next section.

Table 5. Summary of an assessment of the pilot program design using a self-assessment questionnaire.

<u>Question</u>	<u>Decision outcome</u>
1. Is it clear for what purpose the planning document is to be used?	A statement of purpose is made, but all components necessary to meet the definition of the purpose are not present.
2. Is there sufficient background presented for the reader to know why a program is needed?	Additional background and support for the pilot program is warranted.
3. Is this DEC's program or is it NYSCC's program?	This is DEC's program.
4. Does the planning document adequately indicate the roles of DEC, NYSCC, and HDRU?	The document could be strengthened by stating the expected roles of the 3 groups in a section called "Roles of Supporting Organizations" and associating those roles with a time line.
5. Is the title appropriate given the purpose of the planning document?	A more intuitively understandable title would improve the opportunity to have the pilot program accepted and supported.
6. Is it clear how the decision makers will decide whether to operationalize the pilot program?	A clear statement is needed about the minimum number of master hunters necessary to implement the pilot program.
7. Is it clear how the decision makers will decide whether to implement the plan on a statewide basis?	The method through which a decision can be made about whether to expand the plan statewide is clearly stated.
8. Are the objectives clearly spelled out?	Objectives could be refined.
9. Are the expected "payoffs" of the pilot program clear?	No explicit statement is made of the expected "payoffs" or outcome of the pilot program that would help DEC and NYSCC decide whether they want to support the pilot program.

Table 5. Continued.

10.	Does the document adequately indicate who (agency/group or individual) will do what specific duties relative to the implementation?	Duties to be conducted by DEC's Hunting Retention Specialist, NYSCC, and HDRU are explicitly stated in the planning document.
11.	Does the document adequately describe when things are going to happen and in what order?	The timetable adequately describes when specific activities will occur and in what order.
12.	Is the level of writing appropriate given the intended audience?	The level of writing is not appropriate nor consistent. An intensive editing of the planning document is warranted to improve its utility.

RECOMMENDATIONS

The 3 methods used in this report to assess the completeness and adequacy of the planning document (NYSDEC 1990) effectively evaluated all aspects of the pilot program design. Some of the aspects were addressed in a complete, useful, easily-understood manner whereas other aspects of the pilot program design could be improved. Based on this program design evaluation, we recommend the following:

1. Develop a more intuitively understandable title to help generate support for the pilot program and to make the pilot program more easily understood.
2. As additional background information, further discuss the relationship between progression in the hunting-adoption process and continued participation in hunting for those readers not familiar with the hunting-adoption process.

3. Revise the stated objectives to reflect more closely the actions that will be conducted to meet the stated goals.
4. Develop explicit "expected outcomes" or "payoffs" for the pilot program to help potential supporting organizations make decisions about providing assistance and to facilitate program outcome evaluation.
5. Develop a section called "Roles of Supporting Organizations" and explicitly state the roles of each organization.
6. List the benefits of the pilot program to all supporting organizations, master hunters, and apprentices.
7. Determine the minimum number of master hunters needed to initiate and continue implementation.
8. Rename the Operational Design section of the planning document to indicate more accurately that it pertains only to apprenticeship experiences, and include additional text to explain the operational design for apprenticeship in more detail.
9. Develop a new section in the planning document that describes in detail how social support will be operationalized, and how the pilot program design will differentiate between apprenticeship and social support.
10. List logistical concerns associated with the pilot program, and add discussion of those concerns to the agenda for the initial meeting with NYSCC and to the agenda for the master hunter training workshops.
11. Intensively edit the planning document to ensure that the writing style is consistent and of an appropriate level throughout.

We strongly recommend that these 11 items are accomplished before the pilot program is implemented to ensure that it has the greatest opportunity for success.

NOTES ON THE PROCESS OF DESIGNING THE PILOT PROGRAM

As part of our evaluation of the planning document describing the pilot program (NYSDEC 1990), we have become aware that some of the inadequacies identified in the program design have resulted from the process itself. The most important problem identified with respect to the process was that DEC staff who are busy with specific tasks in their home Regions may not be the most appropriate individuals to take on the additional job of developing a pilot program like the one evaluated in this report. The staff's busy schedules tend to make them most comfortable with an ad-lib approach to program design whereby little time is spent researching background material and critically examining the underlying theory and supporting empirical evidence for a program. Unfortunately, this rarely results in an approach rigorous enough for adequate program development and experimental evaluation.

At least 2 solutions exist to overcome this problem with program design. One solution is to remove program design responsibility from Bureau of Wildlife staff and contract out this kind of work to an external agency or organization. A second solution is to provide training, including an evaluation component, to selected staff involved with program design.

Either approach has advantages and disadvantages (Table 6). Our intent is not to recommend one or the other solution. Instead, our intent is to document that this problem occurred with development of the pilot program design, and to suggest that program development efforts potentially could be more efficient and effective if changes were made in the current process used to design programs.

Table 6. Advantages and disadvantages of 2 possible solutions to using untrained agency staff to design programs.

Solution 1: Contracting an outside organization to conduct program design

Advantages:

- Reduces duties required by staff busy with other tasks.
- In the short term, may result in more efficient program design because experienced organization will take less time and effort to develop the program.
- In the short term, may result in more effective program design if an experienced group is used because they will be able to research more rigorously the underlying theoretical basis for the program as well as the empirical support for it.

Disadvantages:

- Staff would not be as familiar with agency programs and would need time to learn them.
- The agency would have somewhat less control over the design of programs.
- Increases the amount of administrative liaison work required.

Solution 2: Providing program design training to staff including an evaluation component

Advantages:

- Staff would be more familiar with agency programs.
- Agency would have more control over the design of programs.
- Increases efficiency and effectiveness of staff involved with program design.

Disadvantages:

- Increases time commitments of staff for training efforts and staff would be required to plan time and other resources for program design.
- Until staff were trained and became experienced, program design would be less efficient.
- Until staff were trained and became experienced, program design would be less effective.

SUMMARY OF FINDINGS ON WHICH THE RECOMMENDATIONS ARE BASED

This section summarizes findings made during the evaluation process and on which the recommendations for enhancing the pilot program design are based. The summary is presented in 3 parts: (1) positive aspects of the process used to develop the design of the pilot program, (2) a reiteration of the recommendations that should be addressed as soon as possible, and (3) aspects of the design process which can be improved upon for future use.

An important positive aspect of the design process was that the formative evaluation techniques used helped the task force improve the design of the pilot program. The task force used the theory application evaluation (Enck et al. 1988) to modify their initial ideas about how the pilot program could be developed to increase its probability of success. For example, the task force changed the original concept for the pilot program from a one-time experience to a year-long series of experiences which more closely follows the conceptual basis for the pilot. Also, the task force began to address both apprenticeship and social support by name as a result of the theory application evaluation.

In addition to using the theory application evaluation to improve the planning document, the task force also successfully used the evaluation presented in this report to enhance the pilot program design. The initial iterations of the review and revision process (described on page 11) helped the task force overcome deficiencies in the design identified by an evaluation team and develop additional detail necessary to assure attention

will be given to important parts of program implementation. Some of the necessary detail included describing duties to be performed by the various supporting groups, developing agendas for training workshops and meetings with program participants, outlining information needs for master hunters, apprentices, and the apprentices' parents, and developing a time line which will facilitate planning.

One of the most successful aspects of the program design evaluation and concomitant enhancement of the planning document by the task force was use of a self-assessment questionnaire. Use of this questionnaire aided task force members in identifying inadequacies and inconsistencies in the pilot program design that had become difficult for them to recognize. That is, individual task force members often had their own interpretation of various aspects of the pilot design and were unaware that other members had different interpretations. For example, task force members identified that the purpose of the planning document was not well defined. Also, inconsistencies were discovered among task force members regarding ownership of the pilot program, and whom the intended audiences were for the planning document.

Although the first 2 phases of the formative evaluation approach have contributed to improving the opportunity for the pilot program to be successful, some potential deficiencies still exist in the program design. These potential deficiencies form the basis for the 11 recommendations made on pages 24-25. Addressing each recommendation would help to increase the

opportunity for the pilot program to be successful. For most of the recommendations, relatively minor effort on the part of the task force would be required.

All 11 recommendations should be considered carefully by the task force before meeting with the NYSCC to ensure consistency with the conceptual design of the pilot program. However, final consideration of some of the recommendations may be best accomplished in cooperation with the NYSCC. Recommendations that should be addressed specifically before finalizing implementation plans with NYSCC include: providing additional background information in the planning document about the relationship between progression in the hunting-adoption process and continued participation in hunting (see Purdy and Decker 1986) (recommendation 2), re-examine the stated objectives with an eye toward meeting the pilot program goals (recommendation 3), list explicit "payoffs" and benefits for all supporting organizations (recommendations 4 and 6, respectively), determine the minimum number of master hunters that are needed to initiate and continue implementation (recommendation 7), develop in more detail the differences between apprenticeship experiences and social support experiences (recommendations 8 and 9, respectively), and thoroughly edit the planning document to ensure that the writing style is consistent and of an appropriate reading level throughout (recommendation 11). Recommendations that may be addressed best in cooperation with NYSCC include: developing a more intuitively understandable title (recommendation 1), list

roles of all supporting organizations (recommendation 5), and list logistical concerns associated with the pilot program (recommendation 10).

In addition to specific findings that led to the recommendations discussed above, a general finding was identified with respect to the process used to develop the pilot design. That is, DEC staff who are busy with specific tasks in their home Regions or who may not have any previous experience in program design may not be the most appropriate individuals to take on the additional job of developing a pilot program like the one evaluated in this report. One solution for those selected staff who do not have program development experience but who are to involved with program design would be to provide training, including an evaluation component. Another solution would be to remove the responsibility for program design from Bureau of Wildlife staff and to hire an external agency or organization to conduct this kind of work. More efficient and effective program development can be accomplished if one of these changes was made in the process.

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APPENDIX A

PLANNING DOCUMENT DESCRIBING A PILOT PROGRAM TO ADDRESS THE DECLINE IN YOUTH HUNTING PARTICIPATION IN NEW YORK

**1989
Stage 1**

Pilot Program

**Sustaining Youth Hunting Interest
Through
Apprenticeship and/or Social Support**

Cooperators

**Division of Fish and Wildlife
Department of Environmental Conservation**

**Human Dimensions Research Unit
Cornell University**

NYS Conservation Council

SUSTAINING YOUTH HUNTING INTEREST THROUGH APPRENTICESHIP AND/OR SOCIAL SUPPORT

This document was prepared by a task force charged with developing a pilot program to provide young hunters with hunting apprenticeship experience and/or social support. The purpose of this document is to explain a proposed pilot program intended to sustain hunting interest in youth to New York State Department of Environmental Conservation administrators and New York State sportsmen. The document is a work plan for conducting the pilot program. Lastly, the document addresses concerns and needs that need to be considered to conduct the pilot program.

S U M M A R Y

Purpose and Background

Participation in hunting provides some of the most direct satisfactions and benefits from our wildlife resources. Hunters directly support wildlife programs with license fees.

The Division of Fish and Wildlife proposes implementation of a pilot program to support youth interested in hunting but who lack a background of hunting skill development and social support. The pilot will rely on volunteer effort by sportsmen and their organizations to offer apprenticeship and social support experiences designed to increase the number of youth who progress from an interest in hunting to sustained participation. A Task Force of Bureau of Wildlife staff developed the pilot approach supported by staff of the Human Dimensions Research Unit (HDRU) at Cornell University. Much of the background information in support of the pilot effort is taken from "Impediments to Youth Participation in Hunting: A Progress Report and Evaluation of Program Development Efforts" by Jody W. Enck, Gerri A. Pomerantz, and Daniel J. Decker.

Hunting participation in New York has declined in recent years, e.g., sales of resident small game licenses have dropped approximately 20% since 1971. Enrollment in New York State Hunter Education Courses (HEC's) decreased about 45% from 1981 to 1987. Coupled with this, up to 25% of any one year's total enrollment of HEC participants do not purchase a hunting license within 2 years after graduation. These trends have resulted in 2 major concerns:

- (1) Many persons who have demonstrated an interest in hunting by attending a HEC have not continued to participate in hunting. Nonparticipation by these potential hunters represents an unnecessary limiting of the numbers of people enjoying the wildlife resources of New York State.
- (2) The decline in hunting license sales has potential to impact greatly the ability of the Division of Fish and Wildlife to continue to provide current levels of services, recreational benefits, and management of wildlife populations.

The pilot study will address these concerns by concentrating on youths (13-17 years old) who represent about 50% of HEC graduates annually, and represent the future hunting population of New York. The pilot program will provide a group of graduates, who otherwise would not be likely to continue hunting, a set of apprenticeship and/or social support experiences. Data from a 5 year study of HEC graduates by Ken Purdy, Dan Decker, and Tommy Brown support the concept that both an apprenticeship experience and a social support system encourage progression in the hunting-adoption process. By design, the focus of the pilot program is on retaining the existing population of people who express an interest in hunting by attending a HEC. This study will not attempt to recruit new individuals into the sport of hunting. However, a successful pilot program may indirectly increase recruitment. The program addresses apprenticeship and social support, two of several elements that have been shown to influence participation in hunting. The percentage of hunters who continue to hunt as a result of this program will be measured to determine program success.

In the context of the pilot program, the definition of apprenticeship experiences is:

A set of pre-hunting (i.e., prior to legal participation in hunting) or early hunting experiences over time with a someone who is a role model or mentor for hunting.

Apprenticeship experiences include several aspects that are important for the development of a pilot program:

1. Multiple hunting-related experiences are required.
2. Hunting-related experiences may or may not include handling of firearms.
3. Small maximum group size (e.g., 1 or 2 apprentices for each master hunter).
4. Apprenticeship experiences involve the total experience from planning and preparation through the time spent afield to reminiscing about the hunt (see Table 1).

Table 1. Both apprenticeship and social support experiences should include aspects from the total hunting experience including planning and preparation, and recollection, as well as the actual time spent afield.

<u>Examples of Hunting-Related Activities that Encompass the Total Hunting Experience</u>		
<u>Planning and Preparation</u>	<u>Field Experience</u>	<u>Recollection</u>
Reading magazines about hunting	Traveling to hunting location	Telling hunting stories
Learning shooting skills	Searching for game sign	Looking at photographs
Hearing hunting stories	Examining wildlife food sources	Cooking game
Obtaining hunting clothes and equipment	Watching dogs hunt	Eating game
Cleaning firearms	Using orientating skills	Having trophy mounted (including collecting squirrels tails, grouse tails, etc.)
Re-loading shotshells	Encountering game	
Learning habitat/wildlife relationships	Shooting at game	Cleaning firearms
Finding hunting locations on a map	Traveling home from hunting location	Updating a hunting journal
Preseason scouting		
Training a dog		

5. Development of a role modeling or mentoring relationship between the master hunters and apprentices.
 - a) Pairing of master hunters and apprentices based on similarities in their characteristics to provide the greatest opportunity for assimilation of hunting values.
 - b) Development of a trusting relationship between master hunters and apprentices.
 - c) Assimilation of ethical behavior by apprentices through repeated exposure to ethical sportsmen.
 - d) Assimilation of hunting knowledge and skills by apprentices through repeated exposure to hunters.
 - e) Providing a recognition dinner as an amicable "end" to the relationship.
6. Development of multiple hunting related motivations beyond those associated with just achievement to also include companionship and appreciative motivations (see Table 2).

Table 2. Definitions of motivations for hunting.

Achievement-related motivations: Getting a bag limit or almost always being successful in bagging game, making a difficult shot, showing game bagged to family or friends, being thought of as a good hunter, or having good hunting equipment.

Companionship-related motivations: Sharing stories of hunting activities with companions, maintaining traditions of hunting with others, or simply being afield with other people you like.

Appreciative-related motivations: Simply getting away from everyday problems, experiencing the solitude, smells, and sound of the outdoors through hunting and observing all types of game.

Social support is a second driving force which influences an individual's decision to participate in hunting. In the context of the pilot program, the definition of social support is:

Family-related and peer support of hunting participation indicated by those who positively influence or actually initiate an individual into hunting and expressed through their companionship in or their encouragement for a broad array of hunting activities.

A social support system has a combination of 3 kinds of key people: (1) influencers, (2) initiators, and (3) companions. Influencers include those individuals, both family and nonfamily, whose positive beliefs, values, and attitudes about hunting are assimilated by other individuals over time and lead to the development of an interest in hunting. Initiators include those family members and others who provide encouragement and support for an individual's entry into hunting. Companions include those who provide camaraderie during activities before and after the hunt as well as during the time spent in the field.

As with apprenticeship experiences, there are several aspects of social support that are important to consider for the development of the pilot program:

1. The most effective social support is provided throughout the total experience from planning and preparation through the field experiences to reminiscing about the hunt (see Table 1).
2. Include established or specially developed peer support such as same-age friends.
3. Capture family interest throughout program implementation including planning and reminiscing even if the family does not participate in the time spent afield.

By definition, social support should be provided by a network of individuals who are introduced to the apprentices by the master hunter. Through this network, the apprentices get repeated exposure to people who provide encouragement and support for the apprentices' hunting-related interests. The people in this social support network can help with many aspects of the pilot program, but the master hunter should be the major influence on the apprentice so the development of the mentoring relationship can occur.

Overview of Procedures

New York State Conservation Council (NYSCC) Directors and other sportsmen have expressed informal interest to DEC in offering more support to young hunters as a means of addressing declining hunter numbers. Some sportsmen's groups and some individual sportsmen have developed programs for assisting young hunters in the past. Those programs have been very beneficial, but they often are localized in their scope. In addition, those programs often attract young hunters who already have positive social support and have had previous apprenticeship experiences. Many years of research by the

HDRU at Cornell University has shown that these young hunters are likely to continue hunting without additional social support and apprenticeship support.

There have been no programs developed which specifically target young hunters who do not have social support or apprenticeship experiences. Also no programs have been developed which potentially could reach all such young hunters in New York State. The pilot program outlined in this document will represent a test of a program which could be expanded into a statewide program. Such a program would represent the first of its kind in the country.

To ensure the greatest possible opportunity for success, a pilot program of this type will require input and support from many groups and individuals. The pilot program must be based on a sound theoretical foundation and backed up by empirical evidence that supports the theoretical foundation. It must be supported by the wildlife management agency to ensure that the program elements meet policy and legal requirements. Also, the pilot program must be supported by people who can fill the various roles from coordinators, to master hunters, to people who can make coffee at meetings. For these reasons, the pilot program needs to be a cooperative effort between the sportsmen of New York State, DEC and Cornell University.

This proposal seeks participation by organized sportsmen in completing the design of a pilot program to be conducted by the Department of Environmental Conservation (DEC), the NYSCC, and interested volunteers. Formal evaluation elements will be conducted by Cornell University's HDRU.

The Purpose of this Document

DEC administrative Region 3 was selected for the focus of the pilot program. Several factors contributed to the selection of this area. Because Region 3 has a high urban base, it was believed that the area may have a high proportion of individuals who are interested in hunting but do not have apprenticeship opportunities or social support for hunting. In addition, Region 3 has numerous active sportsmen's groups who have expressed interest in such a program, and a pool of potentially excellent instructors exists in the region.

Master hunters will be recruited, organized and trained in early summer 1990. For this period of time, an additional employee (Hunting Retention Specialist [HRS]) will be hired to assist in Region 3 for the duration of the pilot program. (Job description - see Appendix I). Master hunters will be required to attend an in-depth training session and a meeting where they are paired with one or two apprentices. To meet program requirements, subsequent contacts between the master hunters and apprentices should occur in each month of the year. Overall, each pair will be required to participate in a minimum of 15 activities during the year.

A screening will be done of all HEC graduates in Region 3 commencing with the spring of 1990 and continuing through the fall. A sample of 13-17 year old participants will be identified and asked to participate. At this time, the task force recommends that the pilot program be initiated regardless of the number of youth who agree to participate.

A master hunter will be paired with one or two apprentices for a full year. Pairing will occur as HEC's are offered and screening instruments are evaluated. At the end of the year-long program, a recognition dinner will be held to provide a formal end to the program.

Initial success will be measured through a questionnaire to be mailed to apprentices in January 1992. By the spring of 1992, preliminary information will be available that will indicate how successful or unsuccessful the pilot program was. A final decision about whether to expand the program statewide will be made after the final follow-up survey is conducted in January 1994.

Insurance coverage is an important consideration for the pilot program. It is recognized that this will be a key influence on whether master hunters participate. A formal plan has to be devised and adopted by DEC and NYSCC. Some options that can be discussed with NYSCC are in Appendix II.

PROGRAM PROPOSAL

The task force recognizes that the number of participants for the pilot program will not be known with certainty until all Hunters Education courses are completed in Region 3 in 1990. However, it is recommended that the pilot program will be initiated regardless of the number of apprentices and master hunters that agree to participate.

Goal I

Maximize the amount of benefit achieved from wildlife resources by facilitating participation by all those demonstrating interest in hunting but lacking in skills and/or social support.

Goal II

Help to ensure a sustained financial support base for wildlife management by meeting the needs of new hunting populations who will directly benefit from wildlife and continue license fee support of wildlife programs.

Pilot Objectives

- (1) Determine the advisability of offering an operational program of apprenticeship and/or social support to youthful graduates of Hunter Education Courses who do not have a background of hunting skills and social support.
- (2) Determine the ability of a collaborative "pilot" approach involving sportsmen organizations, volunteer coordinators or mentors, and Department personnel to convert demonstrated interest in hunting to continued hunting participation and receipt of satisfaction and other benefits.

Decision Criteria for a Statewide Operational Program

A decision about whether to implement this program statewide will be based on the following 6 criteria. The sum of the 6 must be positive for the program to be expanded statewide.

- (1) An increase in the proportion of participants¹ who purchase a hunting license from nearly 0 percent to 50 percent during the two years following the program.

¹Participants are individuals who: have demonstrated an interest in hunting by taking a Hunter Education course; have not had prior apprenticeship and/or social support experiences associated with hunting, and voluntarily participate 1 of the 2 types of experiences offered in the pilot program.

- (2) Achievement of a "continuation" stage of hunting adoption² by at least 25 percent of the participants 2 years after completion of the pilot program.
- (3) An increase in the mean days of hunting by the apprenticeship and full support treatment groups, as an additive improvement over a control.
- (4) The man hours and dollars spent in implementing the pilot program will be determined for the Department of Environmental Conservation, collaborating organizations, and individual volunteer master hunters. The man hours and dollars spent by DEC will be compared to the license revenue generated by the program participants, as one of several decision criteria. It is recognized that it may take several years to show a positive cost-benefit ratio.
- (5) The extent that volunteers who are selected to provide apprenticeship but actually provide a level of social support will be measured by examining log books each master hunter will keep. The costs associated with training master hunters to provide apprenticeship vs. apprenticeship and social support will be determined and weighed against the degree to which social support networks develop without special training.
- (6) Willingness of 75% of the master hunters and the sponsoring organizations to repeat involvement in a similar program.

TIME LINE FOR PROGRAM IMPLEMENTATION

January 190	-	Final commitment by DEC.
Jan-Feb 1990	-	Initial meeting with representatives of NYSCC.
February 1990	-	Mailing of information to all HEC instructors.
1 April 1990	-	Hire hunter retention specialist.
1 April 1990	-	Initiate formal recruitment of master hunters.
April 1990	-	First HEC's of the year.
Late spring- early summer 1990	-	Screening of master hunters.
Late spring- late fall 1990	-	Screening of apprentices.

²Adaption of innovation-adoption process (Rogers and Shoemaker 1971) by Decker and Purdy, 1986.

Summer-fall 1990	-	In-depth training sessions for master hunters.
Summer-fall 1990	-	Notification of apprentices.
Summer-fall 1990	-	Pairing sessions.
Summer 1990- late fall 1991	-	Program activities.
Fall 1990- late fall 1991	-	Intermediate evaluations.
Summer 1991- late fall 1991	-	Wrap up interviews.
Summer 1991- late fall 1991	-	Recognition dinners.
Late fall 1991	-	Termination of hunter retention specialist.
January 1992	-	Initial evaluation of program outcomes.
January 1994	-	Final evaluation of program outcomes.

OBTAINING FINAL DEC COMMITMENT

One of the most important steps that must be taken before implementation of the pilot program can occur is for DEC to indicate a firm commitment to the pilot program. Initial support already has been indicated through creation of a task force to address DEC's concern about declining participation in hunting. Support also has been indicated through continued cooperation in Project W-R-146 with the HDRU at Cornell University. The HDRU is providing consultation and evaluation services for the pilot program.

Additional DEC support for the pilot program will be necessary in the form of personnel time to participate in the operation of the pilot program (e.g., HRS, Region 3 Sportsmen's Education Coordinators, others), and support staff time. Financial commitment for salaries, supplies, and materials also will be needed. An estimate of program needs is provided in Appendix III.

OBTAINING NYSCC SUPPORT

A DEC task force has developed the operational framework for the pilot program with assistance from HDRU researchers who have provided much of the theoretical basis and empirical evidence for the needed elements of the pilot program. However, the DEC task force felt that any program that is intended to affect hunting participation by sportsmen, must have input by sportsmen. For that reason, sportsmen should have a lead role in implementing the pilot program. How this role can be developed is yet to be determined and is a main topic for discussion with the NYSCC and DEC.

To begin gaining the support of NYSCC, representatives of DEC, HDRU, and NYSCC will meet in the fall of 1989 to discuss various aspects of the pilot program. An agenda of this meeting can be found in Appendix IV. A meeting with a small group of representatives of NYSCC will provide the opportunity to explain the background for and general design of the pilot program and to discuss possible roles for the various groups involved before meeting with the entire council. This group of NYSCC representatives will be the most appropriate council members to: (1) identify the types of support that NYSCC may be able to provide for the pilot program subject to agreement by the entire NYSCC, (2) identify communication channels between NYSCC and DEC, and (3) provide communication back to the entire NYSCC membership.

At this preliminary meeting, Ken Wich, Gary Parsons, Dennis Faulkham, and Dave Scudder should be in attendance for DEC. The NYSCC president, members of the board of directors, and the Sportsmen's Education Committee chairman are the most likely candidates to represent NYSCC.

This preliminary meeting will be followed by a presentation of the pilot program concept to the full NYSCC in December 1989. Dennis Faulkham will make the presentation as the facilitator of the task force that developed the operational plan for the pilot program.

At the end of the meeting, there should be a firm commitment for participation by NYSCC, an idea of the financial contribution they are willing to make and the feeling that sportsmen and the DEC are partners in this venture.

OBTAINING SUPPORT OF HUNTER EDUCATION INSTRUCTORS

Another key element to the success of the pilot program is support from HEC instructors. These instructors will be depended upon to administer a screening instrument to all youths 13-17 years old at the completion of each HEC. Without this assistance, apprentices could not be identified for the pilot program.

Because the pilot program will be implemented in Region 3, the DEC contact with the HEC instructors can be accomplished by the Region 3 Sportsmen's Education Coordinator. HEC instructors will be notified by mail about the pilot program in February 1990. This is several months in advance of when HEC's will be offered, and will provide ample opportunity for pilot program coordinators to address any questions raised by the instructors.

Information sent to the HEC instructors will include a brief description of the pilot program and their role in it. Also included will be one copy of the screening instrument for the youths so the HEC instructors can become familiar with it. In March all HEC's will receive 25 copies of the screening instrument from the Region 3 Sportsmen Education Coordinator. Thus, all HEC instructors will have copies prior to offering any spring courses.

Recruitment of Master Hunters

Master hunters are the most visible part of this pilot program, and recruitment should be tailored to reach experienced hunters with interest in youth and available time.

Recruitment may entail a variety of techniques ranging from newspaper advertisements to solicitation at sportsmen's clubs meetings. The NYSCC will guide the methodology and be most effective in recruiting potential master hunters through contact with sportsmen's organizations throughout Region 3. The HRS also will have an important role in the recruitment of master hunters. All interested persons should be notified to contact the Region 3 DEC office for an application (Appendix V).

NYSCC may want to start active recruitment efforts in January 1990. The HRS will commence recruitment efforts after he/she is hired in April 1990. In addition to coordinating recruitment efforts with the NYSCC, the HRS will make presentations to sportsmen's federation meetings and will conduct an extensive mailing to sportsmen's clubs, HEC instructors, and other identified individuals who may have an interest in becoming a master hunter. Additionally, support staff in Region 3 should be trained to answer telephone inquiries about the program. Active recruitment should end by August 1990. All interested persons should be notified to contact the HRS for an application.

Application for Master Hunters

The application (Appendix V) will serve 2 purposes. It will help in the selection of master hunters from a pool of candidates, and it will help in the pairing of master hunters and apprentices.

Master hunters will provide the one-on-one contact with the participants in the pilot program. To ensure that the pilot program has the greatest opportunity for success, qualifications for master hunters are that they:

- (1) have at least 7 years licensed hunting experience
- (2) demonstrate an interest in training youth relative to hunting
- (3) have available time and resources to meet with the apprentices at least 15 times during the year (preferably more) in a variety of activities related to hunting.

These qualifications will be assessed in the questionnaire and/or follow-up interview. Also assessed in the questionnaire and/or interview will be several types of information that are important considerations for pairing master hunters with apprentices:

- Age (at least 18 years old - for purposes of legal accompaniment).
- At least 7 years licensed hunting experience (based on the judgement of the task force regarding the amount of experience necessary to provide the desired mentoring experience).
- Types of hunting in which they have participated and in which they are accomplished.
- Likes/dislikes of other recreational activities.
- Languages spoken.
- Other special considerations including capability to provide access for and accompany handicapped hunters.
- Gender (for pairing purposes).
- Questions about past events such as ECL violations or a criminal record that might affect their ability to perform as a master hunter.
- Amount and distribution of time available for the program.

Selection of Master Hunters

As completed applications are received at the Region 3 office, the HRS will review the applications with assistance from the Region 3 Sportsmen's Education Coordinator. Follow-up telephone interviews or personal interviews will be made if more information is needed to make a decision regarding their qualifications. Names of all applicants will be reviewed formally, similar to the review conducted for the Sportsmen Education Program. The review will be conducted through the Division of Law Enforcement in Albany, to ensure the quality of the applicant pool.

The HRS with input from the Region 3 Sportsmen's Education Coordinator will make the final selection of master hunters.

It is expected that four types of individuals will volunteer to be master hunters:

- (1) individuals with a hunting background, who currently have a societal network similar to the students, and who are willing and able to relate hunting to the social context of the youth.
- (2) individuals who do not have a similar social network, but who want to work with youth, and who by their philosophical and patient nature will be excellent role models.
- (3) individuals who do not have a strong social network or teaching abilities, but believe that society's views about hunting "need to be fixed" and that the place to start is with the students in this pilot program.
- (4) unsuitable individuals who do not have the dedication, background, and ability necessary to carry out the program.

Volunteers who fall into either of the first 2 groups will be considered by the HRS as potential master hunters. Volunteers who belong to the third and fourth group will not.

The number of master hunters needed is dependent on the number of student participants in the pilot program. Previous research (by Cornell University) indicates that 150-160 youth (ages 13-17) may be identified in the first screening as potential participants for the pilot program in Region 3. If all these individuals want to participate, about 50-100 master hunters will be required. This will provide for 1-2 apprentices for each master hunter providing either apprenticeship or apprenticeship and social support, and a third (control) group of students, without master hunters, equal in size to each of the other 2 groups.

Similarly, the distribution of master hunters needed for the pilot program will be dependent on the distribution of student participants. Although the distribution of participants will not be known until after all of the HEC's are offered, some useful information exists currently. An examination of where HEC's were offered in Region 3 in 1988 and the number of students in each class will be used to obtain an indication of the distribution of potential participants. This information will be gathered and analyzed by

the Region 3 Sportsmen's Education Coordinator and HDRU, and will be available by January 1990 so that NYSCC and the HRS (when hired) can start thinking about how and from where master hunters and volunteer clubs need to be recruited.

Applicants who are selected to be master hunters by the end of May will be notified through an invitation to attend 1 of 2 training workshops. They will be held at different locations and dates to accommodate the distribution of the applicants. Invitations will be produced and distributed by the HRS. The date, time, and place of each workshop (all to be determined by the HRS) will be on the invitation. Master hunters will be asked to check their first choice of dates to attend a workshop and RSVP back to the HRS. The HRS will then notify each master hunter which workshop he/she should attend.

Because recruitment will occur from January-August 1990, applications are expected to come in throughout that time period. Additional workshops will be established as the demand for additional master instructors occurs throughout the 1990 season. This means that some master hunters will be notified of their acceptance into the pilot program before all applications have been received.

The task force believes there will be no lack of master hunters. However, if such a lack of master hunters arises some master hunters will be asked to take on another apprentice.

First Formal Contact with Volunteer Program Staff

Each training workshop will be run by the HRS, but will require participation by sponsoring organizations (e.g., local sportsmen organizations, NYSCC, and Cornell's HDRU). Although all master hunters should be selected and trained by September, some may not be paired with an apprentice until nearly the end of 1990 when the last HEC's are taught. It is possible that more people will volunteer to be master hunters than for which there is a need. The workshop will provide the volunteers with 3 things: (1) information about the pilot program including the reasons it is needed, (2) an assessment of how the volunteers may be most valuable to the pilot program, and (3) training to help them operationalize the pilot program.

At the workshop, (agenda - Appendix VI) a summary of this planning document (the same one sent to HEC instructors) will be provided to the master hunters along with additional background information about the necessity for a program. Master hunters will also receive a description or "feel" of what will be required to carry out the experimental apprenticeship with social support experiences to be provided through the pilot program. A presentation will be given by a qualified individual on the topic of mentoring. The function of this individual will be to characterize the types of mentors or role models that are desired.

Three options are being pursued for providing training on mentoring to master hunters:

1. Have an expert on mentoring from a university in Region 3 conduct part of the training workshop for master hunters.

2. Have an identified expert at SUNY in Potsdam prepare a lesson plan on mentoring. A capable educator from the ranks of the Sportsmen Training Program instructors will be asked to teach the lesson plan at the training session.
3. Obtain training and assistance through the New York State decade of the child mentoring program.

After the volunteers have been provided information about what will be expected of those master hunters responsible for each treatment group, they will be asked to write down their social support network³ and the facilities network⁴ that they can use with the students. By attempting to write down these networks, the master hunters and the coordinators will have the opportunity to assess their suitability as mentors for the apprenticeship group or the apprenticeship with social support group.

The training workshop also will provide an opportunity for the master hunters to be presented with information about the types of support that NYSCC and the sportsmen's clubs can provide. Information also will be presented about the evaluation of the pilot program by HDRU and the role of the master hunters in that evaluation. (See Evaluation Procedure on page).

Selection of Youth who will be Invited to Participate in the Pilot Program

HEC instructors will play a pivotal role in the process of selecting apprentices. However, it is recognized that HEC instructors are volunteers and are very busy. Therefore, the burden placed on the instructors must be minimal. HEC instructors will be asked only to distribute questionnaires to all graduates and to say that NYSCC, DEC and Cornell University are conducting a study on the hunting-related background of this year's HEC graduates. No additional instruction to pilot program is desired for HEC graduates before they complete the questionnaire because of the possibility of the HEC graduates biasing their responses to the questionnaire.

The purposes of the questionnaire (Appendix VII) are to:

- (1) determine in which stage of hunting adoption the individuals

³Social support networks are hunters and other individuals besides the master hunter who can provide additional social support for the apprentice. This includes, but is not limited to persons who can be companions on hunting trips, persons who can teach a specific skill to the apprentice and master hunter (e.g., turkey calling, predator calling, decoy painting), persons who can share hunting stories, and persons who may cook game dinners.

⁴Facilities networks include not only physical facilities for shooting-related activities such as skeet, trap, target shooting, or archery shooting, but also access to hunting equipment such as boats for duck hunting, waders, reloading tools, hunting dogs, etc.

- are, (i.e., awareness, interest, trial, continuation),
- (2) ascertain which individuals have had hunting apprenticeship experiences and positive social support relative to hunting,
 - (3) determine the hunting intentions of the individuals, and
 - (4) determine personal information that will be used to match youth with Master Hunters.

HRS will drop off questionnaires to instructors and will pick them up after completed. HDRU will analyze the questionnaires and identify those individuals who have not had hunting apprenticeship experiences or positive social support relative to hunting and who therefore are candidates for inclusion in the pilot program. Questionnaires will be analyzed in 4 groups. After approximately one-quarter of the Hunter Education Course's in Region 3 have been offered and the graduates' questionnaires received by HDRU, analysis will commence. Another group of questionnaires will be analyzed after approximately one-half of the HEC's have been offered, another group after three-quarters, and the final group will be analyzed after all HEC's have been completed for the year. By following this system, pairing of master hunters and apprentice can be accomplished in 4 relatively small groups. Also, this will allow most master hunter-apprentice pairs to initiate the pilot program prior to or during the height of the 1990 hunting season.

Upon receipt of each pool of candidates, HDRU staff will "shuffle" the names of the candidates to introduce randomness to the distribution of the sample. From each pool of candidates, HDRU staff will systematically select those youth who will be placed in each of the 3 groups: (1) those who are to receive apprenticeship experiences only, (2) those who are to receive apprenticeship experiences and positive social support, and (3) a control group whose members receive neither apprenticeship nor social support. This selection process will be accomplished by listing and enumerating all candidates for inclusion in the pilot program. Beginning with the third name on the list, every third name will be placed in the group to receive only apprenticeship experiences. Beginning with the second name on the list, every third name will be placed in the group to receive apprenticeship and social support. The remaining candidates will be placed in the control group. The only exception to this procedure will be that siblings will be placed together in the group to receive apprenticeship and social support.

After this selection process is completed for a pool of candidates, the lists of names, addresses, and telephone numbers will be sent by HDRU to the HRS. It will be the responsibility of the HRS to contact all candidates in the apprenticeship and apprenticeship with social support groups and invite them to participate in the pilot program. (Those individuals in the control group will not be invited to participate, but will be thanked for completing the screening questionnaire.) The mechanism for inviting the candidates is described in another section.

Notification of Apprentices

Apprentices who meet the criteria for participation in the pilot program and who are selected for one of the experimental groups will be invited by mail to participate⁵. The HRS will develop the information packet.

Information aimed at the parents or guardians will include:

- A brief description of why a program is needed that describes how society's structure has changed and that their son or daughter may not have the skills or support that will allow them to participate in hunting.
- An explanation that the program is not intended to make a hunter out of a nonhunter, but that their son or daughter already has demonstrated an interest in hunting by attending a HEC.
- A summary of some of the benefits of hunting.
- A statement emphasizing that the pilot program will provide a continuation of some aspects discussed in the HEC such as firearms safety, fitness, self-reliance, and ecological appreciation.
- Notification that the youth is free to stop participation if he/she desires.
- A discussion of costs to participants.
- Description of the master hunter selection process.
- Invitation to introductory meeting.
- Phone number of HRS for clarifications or further information.

These items are vitally important in developing a level of acceptance among the parents/guardians of those youth selected. The pilot program can only succeed if parents/guardians feel comfortable about letting the youths participate.

Information aimed at the student will include:

- An invitation for the youth to attend an introductory meeting. Parents/guardians also will be encouraged but not required to attend the meeting.

⁵Apprentices who are selected to be in the control group will not be notified at this time.

- Brief description of the pilot program.
- Explanation of the introductory meeting including agenda (Appendix VIII).
- Permission slip to attend introductory meeting/participate in whole program.
- A form on which to indicate transportation needs to the meeting (may be on waiver form).
- Instructions on how to prepare/what to bring to meeting.
- A meeting agenda.
- A stamped, addressed envelope for returning permission slip, and transportation information to HRS.

A return envelope will be provided with the packet in which the waiver and transportation needs form can be sent to the HRS. Assistance w/transportation needs will be discussed with the participating sportsmen clubs. HRS will compare information provided on the apprentices' screening instrument with information from the master hunters to make a decision about pairing apprentice and master hunters prior to the introductory meeting. For those cases where one of several master hunters may be appropriate for an apprentice, the master hunter who lives closest to the apprentice will be selected. In all cases, the apprentices will be paired with master hunters of the same gender or with husband/wife pairs of master hunters.

The pairing process will be one of the most important aspects of the pilot program. Extreme care must be taken to ensure that the master hunters will be able to relate to the student's social setting and will be able to build a mentoring relationship from that context. Only through the building of this relationship will the pilot program have the greatest opportunity for success. The pairing process is described in more detail in a later section.

Operational Framework for the Pilot Program

The pilot program provides a 6-point plan for master hunters and apprentices. The 6-points are:

1. Non-hunting experiences should occur throughout the year. At least one of these activities should occur before the apprentice is taken on a hunt. (The following are suggestions: other experiences are welcomed.)
 - Shooting at range, turkey shoots, etc.
 - Turkey, deer, waterfowl clinics
 - National hunting and fishing day activities
 - Dog trails
 - Wood duck or bluebird box trails

- Trapping or archery course
 - Reloading
 - Hunting videos
 - Sportsmen's club meetings
 - Waterfowl identification in a marsh
 - Scouting activities
 - Instruction on gaining access to private land
 - Cooking game
2. Practice safe firearms handling.
 - May or may not involve actual firing of firearms
 - Becoming more familiar with the firearm
 3. Controlled firearms shooting experience.
 4. First hunting experience.
 - Apprentice chooses whether he/she carries a firearm
 - Experience should include a planning phase, field phase, and a recollection phase
 5. Subsequent hunting experiences.
 - Experiences with majority of planning input provided by master hunter
 - Experiences with majority of planning input provided by apprentice
 - For different species
 - In different habitat types
 6. Formal ending of the mentoring process.

Get Acquainted Meetings Between Master Hunters and Apprentices

The NYSCC and DEC will work out the location, number and other logistics regarding get-acquainted meetings.

The purpose of these meetings will be to:

1. Provide the apprentices and any attending family members with a summary of the program in which the apprentices will participate.

2. Provide the parents and guardians with a more detailed description of why a year long, 6 point program is necessary, and answer any questions they may have.
3. Introduce the concept of recording plan of activities (organized in 6 major items) in a planning book.
4. Allow the apprentices and master hunters who will be going through the program to spend some time together. During this time, future activities can be discussed and recorded in the planning book.
5. The planning book can be reviewed with family members who are in attendance.

For each wave (see page 19 where this is defined), apprentices for the 2 experimental groups and their pre-selected master hunters will meet separately. Locations will be determined based on where the apprentices live and will involve input from sportsmen. More than one meeting location may be necessary for each experimental group depending on how far apart the program participants live.

All apprentices, their parents/guardians, and master hunters will meet for approximately 30 minutes to gain further information about the pilot program and to have answered for them any questions they have. At the end of this question/answer period, each apprentice/master hunter pair⁶ will be announced by HRS who will know the background of each (through the secondary screening instruments) and who knows what the "match" criteria were. This will be followed by a 5 minute break during which the apprentice and master hunters can get acquainted.

While the apprentices and master hunters meet, parents/guardians in attendance will be asked to move to another room where they will have provided for them activities such as listening to a summary of what the youth learned in the HEC, viewing a hunting ethics video, or other related activity. The HRS will organize these activities with involvement from sportsmen.

Providing the parents/guardians with such activities will allow the master hunters and the apprentices an opportunity to begin development of the planning book (described below) and development of a sense of rapport without any influence from the parents/guardians who may not be entirely supportive of the program.

⁶In some cases more than one apprentice may be paired with a master hunter (e.g., if siblings, other close relatives, or friends are selected for participation). In cases where girls are selected for participation, master hunters will be women or wife/husband teams.

The task force recognizes that logistical problems may occur with these meetings. For example, many members of the sportsmen's clubs which may provide facilities for these get acquainted meetings only have one room. The locations selected need to have at least 2 large rooms. More than 2 would be appropriate because the master hunter/apprentice pairs can meet in any of several small rooms. A statement indicating recognition of this potential problem should be placed here. These details need to be worked out with the involvement of sportsmen.

The master hunters and their respective apprentices will meet for approximately one hour. During that time, the master hunters will determine what the apprentices' expectations are of the program and will discuss with the apprentice how his/her personal goals can be integrated into the general program framework. If the apprentices' expectations do not integrate well with the program framework and with the objectives, the master hunter can discuss in more detail what the objectives of the pilot program are so that the apprentices' expectations are not unrealistic.

One of the best ways to ensure that both master hunter and apprentice maintain similar expectations about the pilot program will be for them to plan together during this meeting the activities they will pursue during the year-long pilot program. The basis for this plan will be the operational framework within which the pilot program will be conducted. As the plan is developed by the pair, the master hunter should record the procedures in a planning book. In this way the master hunter, and later the evaluators, can ensure that the plan meets the criteria outlined in the operational framework. As the plan is implemented, it also will allow the master hunter/apprentice pair to determine whether their personal goals and expectations are being met.

The planning books will serve many purposes including: (1) provision of a set of guidelines for the master hunters that outlines the procedures for either apprenticeship or apprenticeship with social support experimental treatments, (2) recording of the actual plan decided on by the master hunter and the apprentice, (3) recording of time and other costs to the master hunter, and (4) recording of program implementation for evaluation purposes.

Pages in the planning book (Appendix IX) will be separated into 3 parts. The first is a description of a stage in the pilot program including the criteria for meeting the operational definition of that stage. The second part is a blank space where the master hunter can record his/her plan (to be developed with the apprentice) for meeting the criteria of that stage of the pilot program. This will ensure that all operational criteria are met. The third part is a blank space for a report of what was actually accomplished (who, what, where, when, how), what parts of the plan were not accomplished, why not, and an indication of what can be done in a remedial step to ensure meeting all of the operational criteria. By using these planning books, the master hunters will be able to record their activities, determine what succeeded or did not succeed, and most importantly, ensure that the pilot program has the greatest opportunity for success.

The apprentices will be provided a journal or log book (Appendix X) in which they can record their plans for future activities, outcomes of their experiences, and general comments. Apprentices will be encouraged to share these books with their

parents/guardians. The parents/guardians are able to keep abreast of the youth's activities.

Both the master hunter planning books and the apprentices log books will contain questions that will help HDRU evaluators assess the impacts of the program. Because of the need for this, task force members and HDRU staff will develop a mock-up of each type of work. Sportsmen will be given the opportunity to review and help finalize both of these types of books.

The initial meeting will close after the master hunter and apprentice tentatively agree on the day for the next meeting. If parents/guardians don't attend this initial meeting, then the next meeting should be a continuance. It is expected that the parents/guardians will be concerned somewhat about their youth spending time with a stranger on mostly a one-to-one basis. Thus, the purpose of this meeting will be for the master hunter and the apprentice to describe their plans to the parents/guardians including how their personal goals and expectations can be met. If the parents do attend the get-acquainted meeting, the next meeting between the apprentices and master hunters can be any non-hunting experience.

A possibility exists that the screening process used to match master hunters and apprentices may not work in all cases. If it becomes evident to the master hunter, apprentice, and HRS at the initial meeting that a pairing match will not work for some reason (e.g., severe personality differences), then an attempt will be made to match the apprentice with another master hunter at that meeting. A few model master hunters will be held in reserve.

Communication Between Master Hunter and Program Sponsors

Information, moral support, and a means of obtaining feedback for the program require that contact with the master hunter be maintained through the program.

1. A newsletter will be produced by the HRS, highlighting information of interest throughout the program's existence. Area activities can be posted, invitation for special events announced (range day), etc.
2. Direct contact by phone or visit by the HRS to the master instructor. These contacts will occur at least 2 times during the year of the program. In the first three months and again before the ninth. If no activities are planned during the first three months, a new pairing will be made.
3. Master hunters will be provided the phone number of HRS and/or the Region 3 Sportsmen's Education Coordinator for any contact they may want to initiate.

Subsequent Contacts Between Master Hunters and Apprentices

Subsequent contacts between the master hunter and apprentices will follow the plan they devised together. The actual number and types contacts will be determined by the pair within the guidelines provided by the operational framework. It is expected that the NYSCC and the individual sportsmen's clubs may be able to provide much support for some of these subsequent contacts.

Although some master hunters may want to make extensive use of such supports, others may wish to use their individual resources to design their own activities. The program can provide as much or as little structure for these subsequent contacts as the master hunter desires within the operational framework as long as it fulfills the 6 point plan.

Termination of the Mentoring Process

Research has indicated that some kind of formal termination to the mentoring process is necessary. A point is reached where the apprentice and master hunter have learned a great deal from each other, but it is time to break the formal ties of the relationship so that both can continue to grow in an uninhibited manner from what they have experienced. A formal termination of the mentoring relationships developed by this pilot program also is a practical need because the pilot program is intended to last only one year.

The formal termination of the mentoring relationship should be a completion or graduation ceremony. Possibilities include a game dinner at the sponsoring fish and game club meeting or a Fish and Wildlife Management Board meeting. The completion ceremony should be chaired by an official figure, though not necessarily DEC personnel. Both apprentices and master hunters should be present as a team, and a certificate of completion or appreciation should be presented to the apprentice. The completion ceremony should follow as closely as possible the one year anniversary of when the master hunter and apprentice initiated the pilot program.

It is expected that master hunters and apprentices may, in some cases, continue to hunt together following the termination of the formal mentoring process.

The details of where and when these dinners occur will be discussed and worked out with the NYSCC. Given the logistics involved, how many recognition dinners would be required? One for each wave? Also, who will be in attendance for NYSCC? DEC? Parents? The task force recommends that organized sportsmen organize these ceremonies, and that they invite the master hunters, apprentices and other appropriate persons. Also recommended is that the sportsmen develop joint NYSCC-DEC certificates of appreciation to be given out at these ceremonies.

EVALUATION PROCEDURE

The evaluation procedure will provide numerous opportunities for feedback and examination of whether the pilot program is on track or whether modifications in the amount of effort or program design are warranted. Each master hunter will be contacted at least twice during the year-long pilot by the HRS. HDRU evaluators also will be in contact with master hunters and will visit some of the master hunter/apprentice pairs during the program. During these contacts, both master hunters and apprentices will be asked to provide their assessment of the pilot program and how well their expectations are being met.

A similar evaluation will be made of the pair at the end of the pilot program. As part of the termination process, master hunters and apprentices will be asked to participate

in an exit interview. Of special interest will be a determination of the developmental progress made by the apprentice. A series of questions may be asked such as: "Do you feel good about going hunting". "Would you feel good about asking a friend to go hunting?" "Could you ask a landowner for permission to hunt?" The responses to these questions may help to provide a general indication of the level of success of the pilot program when compared with responses to more detailed questionnaires administered by HDRU.

Questionnaires developed and administered by HDRU will be used to assess the apprentices' hunting-related attitudes and behaviors following completion of the pilot program. Apprentices in each experimental group and those who are selected as members of the control group (i.e., do not receive either experimental treatment) will be asked to complete a questionnaire immediately following completion of the pilot program and again two years later. Information gained from these two surveys will be compared with baseline information from the initial screening instrument to determine the level of program success.

LIST OF APPRENTICES

Appendix I	Job description and list of tasks for hunting retention specialist
Appendix II	Insurance coverage options
Appendix III	Costs
Appendix IV	Agenda for initial meeting with NYSCC
Appendix V	Master hunter application
Appendix VI	Agenda for master hunter training workshops
Appendix VII	Screening instrument for apprentices
Appendix VIII	Agenda for "get acquainted" meeting
Appendix IX	Master hunter planning book
Appendix X	Apprentice log book

APPENDIX I

JOB DESCRIPTION FOR HUNTING RETENTION SPECIALIST

The key to running a successful pilot program is to hire adequate temporary assistance for region 3 for the duration of the program. In addition to relieving the already overburdened permanent staff, the temporary person would be able to provide some continuity if this pilot effort leads to a statewide program.

There are two possible pools of temporary help for this program:
(1) established tech and biologist lists, or (2) retired Sportsman Education Instructors.

Retired instructors have the advantage of knowledge of local clubs, hunting areas and other resources that will be useful in this program. They have already demonstrated their commitment to working with youth and starting out new hunters.

Using established lists has the advantage of established hiring procedures and the disadvantage of less individual selection potential. Top candidates may not have necessary characteristics.

NECESSARY CHARACTERISTICS

Candidates should have an interest in hunting. Experienced hunters are the most desirable individuals because they would need much less training. Candidates should be willing to work unusual hours. Most contact with volunteers and student would necessarily occur on evenings and weekends.

Candidates should enjoy working with young people. They should be skilled communicators and convinced of the value of this project.

It is vital that candidates sincerely believe that hunting is a desirable sport.

Candidates must be self-starters. After the project is established, they would be required to work away from the office with minimal direct supervision.

Candidates must have excellent writing skills, not only because of the documentation that this study will require, but also because a newsletter will probably be necessary to communicate with participants.

Candidates must be able to drive. Photography experience is helpful, to aid in documentation and provide for future publicity if the program continues past the pilot stage.

JOB DURATION AND TIME

The most important time to have help with this program is April through November of the implementation year. Most of the effort would be expended in getting the program underway. It would also be highly desirable to have additional help at the termination of this program because of the documentation needs and the exit interviews of participants.

The amount of work required of the HRS likely will necessitate this being a full time position. Indeed, even more additional help may be required during some phases of the pilot program.

APPENDIX II

Insurance Coverage Options

A blanket insurance coverage plan will be adopted prior to recruitment of master hunters. The different organizations who will be involved will devise a formal plan of accident and liability insurance. Some options which exist are:

- Special activity coverage for accident or illness such as the Cooperative Extension has for their activities might be purchased. This can be purchased for each event. Costs range from \$0.14 to \$0.18 per day for each individual. The paperwork needs to be sent in before and after each activity.
- Annual accident insurance plans can be purchased, such as some 4-H programs use. Costs vary from \$0.50 to \$1.00 per individual and coverage is up to \$1500 for medical expenses.
- A liability (and accident) insurance policy similar to what the Sportsman Education Program purchases is a possibility. This policy costs \$400 annually and covers up to \$300,000 for bodily injury and up to \$50,000 property damage.
- Individual sportsmen clubs may wish to sponsor master hunters and young hunters under their own insurance coverage.
- In addition to accident insurance coverage, it may be possible to include both master hunters and young hunters under Workmen's Compensation and liability insurance coverage as any volunteer state worker by completing a state form ME-6 and attaching a list of all master hunters and young hunters.

APPENDIX III

COSTS

Items of cost included in this plan are variable based on inputs from volunteers and donated facilities.

Several items that are predictable:

Salary of HRS (Grade 8) 1600 hours (for part of the year 20 hrs. per week)	\$13,264
Mileage (based on Hunter Training Records) 10,000 miles x .23 =	2,300
Postage for 3 mailings to Master Hunters	350
Phone Credit Calls (1/3 of the calls being long distance x 500 calls)	250
	<hr/>
	\$16,164

APPENDIX IV

NYSCC/DEC MEETING PLAN - FALL 1989

Initial Participants: NYSCC: President. Members of the Board of Directors.
Sportsman Education Community Chairman
DEC : Ken Wich. Gary Parsons. Dennis Faulkham.
Lt. Dave Scudder.

Purpose of the Meeting: To enlist formal NYSCC support for the pilot program
and to recruit them as an integral partner in the
functioning of the pilot program.

All participants should receive copy of an abbreviated version of the planning
document before the meeting.

Agenda

- I. Discuss practicality of pilot program - can pilot program be
accomplished with NYSCC help? What are the benefits to DEC and NYSCC?
- II. Discuss communication channels between NYSCC, DEC, and HDRU - what
exists? What needs to be improved for project to succeed?
- III. Discuss operational plan for the pilot program including who can fill
the various roles. Include in the discussion an exploration of all
possible funding sources.
- IV. Insurance - what is necessary? How do we get it? Who pays? (Options
are presented in Appendix II.)
- V. Master hunter recruitment - who? How?
- VI. Logistical considerations about meeting places, equipment needs, etc.
- VII. Individual club recruitment for facilities use.
- VIII. Title for program.

APPENDIX V

MASTER HUNTER APPLICATION

PLEASE PRINT OR TYPE

NAME (Last, first, middle)		TELEPHONE (home)	
ADDRESS			
CITY		COUNTY	STATE ZIP CODE
DATE OF BIRTH	SEX <input type="checkbox"/> Male <input type="checkbox"/> Female	OCCUPATION	
NAME OF EMPLOYER		TELEPHONE (work)	
ADDRESS OF EMPLOYER		MAY WE CONTACT YOU AT WORK? <input type="checkbox"/> Yes <input type="checkbox"/> No	
CITY		STATE	ZIP CODE
EDUCATIONAL BACKGROUND. (Please circle highest completed grade or year)			
A. High School 9 10 11 12		B. College 1 2 3 4	
C. Graduate			
HAVE YOU EVER BEEN ARRESTED OR CONVICTED OF ANY OFFENSE, OTHER THAN A TRAFFIC INFRACTION? <input type="checkbox"/> No <input type="checkbox"/> Yes (If yes, explain)		HAVE YOU EVER SIGNED A COMPROMISE OF CIVIL PENALTY FOR A VIOLATION OF THE ENVIRONMENTAL CONSERVATION LAW? <input type="checkbox"/> No <input type="checkbox"/> Yes (If yes, explain)	
NAME AND ADDRESS OF TWO CHARACTER REFERENCES		TELEPHONE NUMBER	
1 _____		_____	
2 _____		_____	
<p>I hereby affirm under penalty of perjury that information provided on this form is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A Misdemeanor pursuant to Section 210.45 of the Penal Law.</p>			
SIGNATURE X		DATE	

RETURN TO:

Sportsman Education Program
Region 3 Headquarters
21 S. Putt Corners Road
New Paltz, NY 12561

DO NOT WRITE IN THIS BOX

- ☐ Investigation Completed
☐ Interview Conducted
☐ Training Course Completed
☐ Approved
☐ Disapproved

APPENDIX VI

AGENDA FOR MASTER HUNTER TRAINING WORKSHOPS

- I. Introduction of program staff - NYSCC Rep. HRS. and DEC personnel.
- II. Introduction of pilot program - HRS
 - Background info about necessity
 - Role of master hunter - necessary commitments
 - Structure of pilot program
- III. Mentoring - unnamed qualified expert

This person must be identified soon.

- IV. Volunteers will write down their social support network and facilities network available for use with students to help determine in which mentor group they fit apprenticeship or apprenticeship with social support.
- V. Information about support to be provided by NYSCC and local clubs - NYSCC Rep.
- VI. Question and answer period.

At end of workshop master hunters must understand the pilot program structure the importance of their position to the success of the program. and they must have a clear picture of their responsibilities to their student. Region staff should be able to classify the type of master hunter each volunteer will be best suited to provide.

APPENDIX VII

SCREENING INSTRUMENT FOR APPRENTICES

PLEASE COMPLETE THE FOLLOWING BACKGROUND INFORMATION

1. What is your age? _____

2. What is your sex?

_____ Male _____ Female

3. Why are you taking the 1989 New York State Hunter Training Course:
(Please mark the one most important reasons.)

- _____ So I can get my first New York State hunting license.
_____ I want to learn more about hunting and wildlife management.
_____ A friend wants me to attend the course with him (or her).
_____ A relative wants me to attend the course with him (or her).
_____ Other (explain briefly): _____

4. Have you ever been hunting? (The term "hunting" means that you went afield with others who were hunting even though you may not have carried a firearm.)

_____ YES - GO TO QUESTION 6

_____ NO - GO TO QUESTION 5

5. If you have never hunted: mark the ONE statement that best describes your feelings about hunting.

- _____ Right now I do not intend to try hunting after the course.
_____ Right now I am unsure whether or not I will try hunting after the course.
_____ Right now I intend to try hunting after the course.

If you answered question 5. SKIP TO QUESTION 9.

6. If you have gone afield with others to hunt: please read each of the following statements carefully. then mark the ONE statement that best describes your feelings about hunting.

- _____ I have tried hunting a few times and did not like it. so right now I feel I will not become a hunter.
_____ I have tried hunting a few times. but right now I cannot decide whether or not to become a hunter.
_____ I have tried hunting a few times and liked it. so right now I feel I will become a hunter.
_____ In the past I have considered myself a hunter. but right now I believe that I will not continue to hunt.
_____ In the past I have considered myself a hunter. but right now I am unsure whether or not I will continue to hunt.
_____ In the past I have considered myself a hunter. and right now I

* 74-6
Dorchester, 1982
Freck et al, 1997 76-7

- believe that I will continue to hunt.
7. On the list below, mark all individuals with whom you have typically gone afield to hunt.

☐ Father
☐ Mother
☐ Brother
☐ Uncle

☐ A female friend
☐ A male friend
☐ Other person (Please specify their relationship to you):

8. Circle the ONE person above with whom you have gone afield most often.
9. Did any members of your immediate family hunt while you were growing up?
- ☐ Yes
☐ No
10. Do any of your family members or friends currently hunt?

Family members

☐ Yes
☐ No

Friends

☐ Yes
☐ No

11. Who has had the greatest influence on your desire to participate in hunting? (Choose only one.)

☐ My father
☐ My mother
☐ My stepfather

☐ My stepmother
☐ Other relative
☐ Friend
☐ No one

12. After you get a hunting license, how often do you think your family and/or friends would be willing to go hunting with you?

Family members

☐ Frequently
☐ Sometimes
☐ Never

Friends

☐ Frequently
☐ Sometimes
☐ Never

13. Are there any reasons that will prevent you from hunting as often as you would like?

☐ Yes (CONTINUE)

☐ No (SKIP TO QUESTION 14)

- 13B. Which of the following reasons are likely to prevent you from hunting as often as you would like: (Check all that apply.)

☐ Family members may not be available to hunt with me
☐ Friends may not be available to hunt with me
☐ Transportation to hunting areas may be difficult to get
☐ There is no place near my home to hunt
☐ There will be few opportunities for target practice
☐ Schoolwork takes up much of my time
☐ Other recreational activities take up much of my time
☐ Other reasons (Please explain): _____

- 13c. Circle the one most important reason above that would prevent you from hunting as often as you would like.

14. How would you describe the type of area in which you live?
(Check one.)

☐ Rural farm
☐ Rural nonfarm
☐ Village under 5,000
☐ City 5,000 to 24,999
☐ City 25,000 to 100,000
☐ City over 100,000

15. Name _____

16. Address:

17. Phone Number: ()

18. _____
Hunter Training Certificate
Number

19. _____
Today's date

After you have completed all the questions, please return the form to the Hunter Education Course Instructor.

APPENDIX VIII

AGENDA FOR "GET ACQUAINTED" MEETING

- I. All parents/guardians, master hunters and apprentices meet together for 1/2 hour. Program personnel introduce clearly state evening schedule. Brief intro to program - this will be first chance for parents and students to ask face-to-face questions. Misconceptions must be clarified at this point.
- II. Pairings are announced
- III. Soda/coffee and donut break
parents are served elsewhere
- IV. Parents are introduced to basic gun safety maybe show shoot/don't shoot video.
- IVa. Master hunters/apprentices one-on-one one hour. Develop planning book outline of year's activities. Determine next meeting.
- V. Parents return and see plans generated.

Activity

Letter _____

(Fill in as described on
page 3)

Program Stage: _____

What we plan to do

MASTER HUNTER

PLANNING BOOK

This book serves the following purposes:

1. a set of guidelines for the master hunter
2. recording of the actual plan decided on by the master hunter and the apprentice
3. recording of time and other costs to the master hunter
4. recording of program implementation for evaluation purposes

What we did

Activity outcomes

Operational Framework for the Pilot Program

The pilot program provides a 6-point plan for master hunters and apprentices. The 6-points are:

1. Hunting experiences should occur throughout the year. At least one of these activities should occur before the apprentice is taken on a hunt. (The following are suggestions; other experiences are welcomed.)

- o Shooting at range, turkey shoots, etc.
- o Turkey, deer, waterfowl clinics
- o National hunting and fishing day activities
- o Bog trials
- o Wood duck or bluebird box trials
- o Trapping or archery course

2. Reloading

- o Hunting videos

- o Youthmen's club meetings

- o Waterfowl identification in a marsh

- o Scouting activities

- o Instruction on gaining access to private land

- o Cooking game

3. Practice safe firearms handling.

- o How or may not involve actual firing of firearms

- o Becoming more familiar with the firearms.

4. Controlled firearms shooting experience.

- o First hunting experience

- o Apprentice chooses whether he/she carries a firearm

- o Experience should include a planning phase, field phase, and a recollection phase

5. Subsequent hunting experiences

- o Experiences with majority of planning input provided by master hunter

- o Experiences with majority of planning input provided by apprentice

- o For different species

- o In different habitat types

6. Final ending of the mentoring process

Activity

Letter

(Fill in as described on page 3)

Program Stage: _____

What we plan to do

What we did

Activity outcomes

Activity

Letter

(Fill in as described on
page 3)

Program Stage: _____

What we plan to do

Enter the Following Information
Into the Book

Program Stage: (e.g.: non-hunting experiences,
practice handling firearms, controlled
shooting, first hunting experience,
subsequent hunting experience, last
formal contact)

What we plan to do ...

What we did

activity
date
time
where to meet
what to bring
* * What would you like to learn from this experience? * *

What we did ...

General description of the activity

Activity outcomes

* * What did you learn from this experience? * *
* * What would you do differently next time? * *

Activity _____

Letter _____

(fill in as described on
page 3)

Program Stage: _____

What we plan to do

What we did

Activity outcomes

Enter The Following Information into the book.

Program Stage:	What we plan to do ...	What we did ...	Activity outcomes ...
(e.g., non-hunting experience, practice handling firearms, controlled shooting, first hunting experience, subsequent hunting experiences, last formal contact)	activity date time where to meet what to bring • What would you like to get out of this experience? • • What would you like your apprentice to learn from this experience? •	description of the activity date time where you went what you did who you went with or met other • How much time did you spend with your apprentice? • • What out-of-pocket expenses did you have for this activity? •	• Did you get what you wanted to out of this experience? • • If no, why not? • • What would you do differently to ensure you met your personal goals through this experience? • • Do you think your apprentice learned what you wanted him/her to learn? • • If no, why not? • • What would you do differently to help your apprentice learn what you wanted him/her to learn? •

Operational Framework for the Pilot Program

The pilot program provides a 6-point plan for master hunters and apprentices. The 6-points are:

1. Non-hunting experiences should occur throughout the year. At least one of these activities should occur before the apprentice is taken on a hunt. (The following are suggestions; other experiences are welcomed.)

- o Shooting at range, turkey shoots, etc.
- o Turkey, deer, waterfowl clinics
- o National hunting and fishing day activities
- o Dog trials
- o Mow duck or bluebird box trails
- o Tapping or archery course

- o Reloading
- o Hunting videos

- o Sportsman's club meetings

- o Waterfowl identification in a marsh

- o Scouting activities

- o Instruction on gaining access to private land

- o Cooking game

2. Practice safe firearms handling.

- o May or may not involve actual firing of firearms

- o becoming more familiar with the firearms.

3. Controlled firearms shooting experience.

4. First hunting experience

- o Apprentice chooses whether he/she carries a firearm

- o Experience should include a planning phase, field phase, and a recollection phase

5. Subsequent hunting experiences

- o Experiences with majority of planning input provided by master hunter

- o Experience with majority of planning input provided by apprentice

- o For different species

- o In different habitat types

6. Formal ending of the mentoring process

Activity

Letter

(Fill in as described on page 3)

Program Stage: _____

What we plan to do

What we did

Activity outcomes

APPENDIX B

**EVALUATION OF THE PILOT PROGRAM DESIGN
WITH 9 QUESTIONS DEVELOPED BY AN EVALUATION TEAM**

(Calendar Page
Letter each day of activity. Specify and plan
each activity on the following pages.

example

July	1990	January	1991
S M T W T F S	S M T W T F S	S M T W T F S	
1 2 3 4 5 6 7	1 2 3 4 5	6 7 8 9 10 11 12	
8 9 10 11 12 13 14	13 14 15 16 17 18 19	20 21 22 23 24 25 26	
15 16 17 18 19 20 21	27 28 29 30 31		

August	1990	February	1991
S M T W T F S	S M T W T F S	S M T W T F S	
1 2 3 4 5 6 7	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8 9	
8 9 10 11 12 13 14	10 11 12 13 14 15 16	10 11 12 13 14 15 16	
15 16 17 18 19 20 21	17 18 19 20 21 22 23	17 18 19 20 21 22 23	
22 23 24 25 26 27 28	24 25 26 27 28		

September	1990	March	1991
S M T W T F S	S M T W T F S	S M T W T F S	
1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	
9 10 11 12 13 14 15	10 11 12 13 14 15 16	10 11 12 13 14 15 16	
16 17 18 19 20 21 22	17 18 19 20 21 22 23	17 18 19 20 21 22 23	
23 24 25 26 27 28 29	24 25 26 27 28 29 30	24 25 26 27 28 29 30	

October	1990	April	1991
S M T W T F S	S M T W T F S	S M T W T F S	
1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	
9 10 11 12 13 14 15	10 11 12 13 14 15 16	10 11 12 13 14 15 16	
16 17 18 19 20 21 22	17 18 19 20 21 22 23	17 18 19 20 21 22 23	
23 24 25 26 27 28 29	24 25 26 27 28 29 30	24 25 26 27 28 29 30	

November	1990	May	1991
S M T W T F S	S M T W T F S	S M T W T F S	
1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11	
11 12 13 14 15 16 17	12 13 14 15 16 17 18	12 13 14 15 16 17 18	
18 19 20 21 22 23 24	19 20 21 22 23 24 25	19 20 21 22 23 24 25	
25 26 27 28 29 30	26 27 28 29 30 31	26 27 28 29 30 31	

December	1990	June	1991
S M T W T F S	S M T W T F S	S M T W T F S	
1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11	
11 12 13 14 15 16 17	12 13 14 15 16 17 18	12 13 14 15 16 17 18	
18 19 20 21 22 23 24	19 20 21 22 23 24 25	19 20 21 22 23 24 25	
25 26 27 28 29 30	26 27 28 29 30 31	26 27 28 29 30 31	

(Fill in as described on
page 3)

Program Stage: _____

What we plan to do

What we did

Activity outcomes

Calendar Page

Letter each day of activity. Specify and plan each activity on the following pages.

Activity

Letter

(Fill in as described on page 3).

Program Stage: _____

What we plan to do

What we did

Activity outcomes

Example: A

July 1990						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

January 1991						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

August 1990						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

February 1991						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		

September 1990						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

March 1991						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

October 1990						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

April 1991						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

November 1990						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

May 1991						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

December 1990						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

June 1991						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

Activity

Letter _____

(Fill in as described on
page 3)

Program Stage: _____

What we plan to do

APPRENTICE

LOG BOOK

This book serves the following purposes:

1. a set of guidelines for the apprentice
2. recording of the actual plan decided on
by the master hunter and the apprentice
3. recording of activities for evaluation
purposes
4. share experiences with parents/guardians

What we did

Activity outcomes

Appendix B

A team of persons responsible for evaluating the design of a pilot program being developed to address declining hunting participation by youth in New York state established a set of 9 evaluation questions. These questions were used to partially assess the adequacy and completeness of the planning document which describes the design for the pilot program. Each question that was used appears bolded below. The discussion accompanying each question leads to a decision about whether the specific aspect of program design relating to that question was addressed adequately.

1. Have all the elements of the conceptual model been addressed?

The conceptual model suggests that many elements have a potentially important influence on whether an individual continues to participate in hunting. However, apprenticeship experiences and social support are 2 of the most important elements. The pilot program design addresses both of these model elements by name (NYSDEC 1990:3, 6).

Decision outcome: The question is adequately addressed.

2. Have all the elements of the conceptual model been addressed adequately?

The operational framework (NYSDEC 1990:19-20) describes a 6-point plan all master hunters are to follow regardless of whether

they are to facilitate provision of apprenticeship experiences only or apprenticeship experiences with social support. As described, the 6-point plan outlines the types of activities that qualify as apprenticeship experiences and the minimum number of apprenticeship experiences to be provided. However, social support is not mentioned in the operational plan, and a differentiation between apprenticeship experiences and social support is not made. The degree to which social support is provided in the pilot program will depend greatly on the personal interpretation of what social support means to the master hunters. This is likely to result in an unsuccessful pilot program.

Decision outcome: The question is not addressed adequately.

3. Have explicit program objectives been identified?

Program objectives have been identified as follows (NYSDEC 1990:9):

1. Determine the advisability of offering an operational program of apprenticeship and/or social support to youthful graduates of hunter education courses who do not have a background of hunting skills and social support.

2. Determine the ability of a collaborative "pilot" approach involving sportsmen organizations, volunteer coordinators or mentors, and Department personnel to convert demonstrated interest in hunting to continued hunting participation and receipt of satisfaction and other benefits.

These objectives pertain to the research thrusts of the pilot program. That is, they indicate that the pilot will be used to test whether a similar program should be offered on a

statewide basis, and whether a collaborative pilot program can help new hunters move from the interest stage of hunting adoption to the continuation stage. However, the objectives do not explicitly indicate what will be done to meet the 2 stated goals.

Goal I is "maximize the amount of benefit achieved from wildlife resources by facilitating participation by all those demonstrating interest in hunting but lacking in skills and/or social support" (NYSDEC 1990:9). Specific, measurable objectives which relate to this goal might include how the amount of "benefit" (needs to be defined in the planning document) will be maximized and how participation will be facilitated.

Goal II is " help to ensure a sustained financial support base for wildlife management by meeting the needs of new hunting populations who will directly benefit from wildlife and continue license fee support of wildlife programs" (NYSDEC 1990:9). Specific objectives for this goal might pertain to methods of meeting the needs of new hunting populations.

Decision outcome: Question is not addressed adequately.

4. Does the program design use the model elements to meet the program objectives?

The program design depends solely on the use of apprenticeship experiences and social support as experimental treatments for identified groups of young hunters. However, it cannot be determined whether the program design uses the model elements well in meeting the program objectives for 2 reasons.

First, the model elements are not differentiated well. Second, specific program objectives are not stated explicitly in the program design. (Research objectives are stated, but not program objectives.)

Decision outcome: Cannot determine whether the question is addressed adequately.

5. Is the amount of effort appropriate to meet the program objectives?

This is difficult to evaluate because true program objectives are not stated explicitly. It can be evaluated if this criterion is changed slightly to evaluate whether the amount of effort is appropriate to meet the program goals.

In this case, the amount of effort required by the program participants may not be adequate unless more detailed guidelines are given regarding social support. The first goal statement indicates the desire to maximize the amount of benefit achieved from wildlife. It is unlikely that this can be accomplished without additional effort being spent on social support aspects of the pilot program. As stated above, more specific guidelines are needed regarding what constitutes adequate social support. The second goal statement also depends on social support being provided to youths because apprenticeship experiences may not be enough to meet the needs of new hunters.

Decision outcome: The question is not addressed adequately for objectives or goals.

6. Can the program be accomplished in the time frame allowed?

The program is designed to pair master hunters and apprentices for 1 year. This likely is the minimum time required to establish a mentoring relationship which results in (1) development of a trusting relationship, (2) assimilation of ethical hunting behavior, and (3) transfer of hunting knowledge and skills.

Implementation of the pilot program already has fallen behind the timetable in the planning document (NYSDEC 1990:10-11). However, if the 1-year time frame is maintained regardless of the starting date, the program objective/goals should be attainable.

Decision outcome: The question is addressed adequately.

7. Is the program logistically feasible?

Pomerantz and Decker (1986:29) stated "all the 'right' ingredients may be present in terms of positive influencing factors, but logistical considerations may prevent an individual from participating" in hunting. Logistical concerns include factors such as (1) distance between the residences of master hunters and apprentices, (2) distances new hunters must travel to hunting areas, shooting ranges, and other facilities, (3) availability of firearms and ammunition, and (4) cost of licenses and hunting equipment. The greater the number of logistical concerns, the less likely the pilot program will be successful.

Many of these logistical concerns are addressed in the program design. The process of pairing master hunters with apprentices based on residence location (NYSDEC 1990:14) should help reduce the distance master hunters and/or apprentices need to travel to meet. Hunting areas cannot be created in urban areas, which is where many of the youth who participate in the pilot are expected to reside. However, the program design indicates that master hunters will be provided with information on facilities and hunting-related opportunities in their areas.

Availability of firearms and ammunition and the cost of licenses and hunting-related equipment have not been addressed specifically in the program design. However, flexibility has been incorporated into the design so these types of logistical concerns can be discussed with the cooperating individuals and organizations. Listing potential logistical concerns in the planning document and ensuring that a discussion of the concerns is placed on the agenda for the meetings with NYSCC and the master hunters will help ensure that they are not overlooked.

Decision outcome: Question is addressed adequately.

8. Does the program conform to DEC policy?

The mission of the Bureau of Wildlife within DEC is:

To provide the people of New York the opportunity to enjoy all the benefits of the wildlife of the state, now and in the future (NYSDEC 1989:4).

The pilot program is designed to retain persons in hunting "...who have demonstrated an interest in hunting by attending a

hunter education course, but who are not likely to continue hunting. Nonparticipation by these potential hunters represents an unnecessary limiting of the number of persons enjoying the wildlife resources of New York State" (NYSDEC 1990:2). Although not explicitly stated, an implied outcome of the pilot program is to help potential hunting dropouts maintain an interest in hunting and continue to enjoy that benefit from the wildlife resource. In that way, the purpose of the pilot program conforms to the mission (i.e., policy) of DEC.

Decision outcome: The question is addressed adequately.

9. Does the description of the pilot program contain enough detail to inform adequately the potential readers about the procedures that will be used in the operationalization of the pilot program?

The level of detail contained in the description of the pilot program was examined during several iterations of the review and revision process outlined in this report (page 12). In general, the summary of the pilot program, which is the first section of the planning document, seems to contain too much detail in some instances than is necessary to convey the main points to the reader. For example, the detailed definitions of apprenticeship experiences and social support may be better suited in the main body of the planning document. Similarly, the reasons why DEC Region 3 was selected may not be necessary in an executive summary. In the body of the planning document, some details have been omitted purposefully because those details are

to be negotiated with NYSCC and the cooperating sportsmen's organizations. For example, some of the logistical details described under evaluation question number 7 above have not been addressed in the planning document.

Most of the detail necessary prior to the negotiation with the cooperating groups is provided with 1 major exception-- additional detail is needed on how the operationalization of social support will differ from apprenticeship experiences. This detail should not be left to chance interpretation by the master hunters. The most appropriate detail would be a set of guidelines for the persons leading the training workshops to follow when instructing the master hunters. Master hunters could then use these guidelines when interacting with the apprentices.

Decision outcome: The question is not addressed adequately.

APPENDIX C

EVALUATION OF THE PILOT PROGRAM DESIGN USING A SELF-ASSESSMENT QUESTIONNAIRE

APPENDIX C

A questionnaire was developed by the Human Dimensions Research Unit at Cornell to facilitate assessment of the completeness and adequacy of a planning document describing a pilot program to address the decline in hunting participation by youth in New York state. The questionnaire was administered to external evaluators and to task force members involved with the development of the pilot program. Each question that occurred on the questionnaire appears bolded below. The discussion accompanying each question is based on the responses to the questionnaire.

1. Is it clear for what purpose the planning document is to be used?

A statement identifying the purpose of the document is necessary for several reasons. First, a statement of purpose identifies why the document was written. Second, a statement of purpose can identify who the intended audience is. Is the document for persons deciding whether the pilot program should be implemented, persons who will be implementing the pilot program, or other groups? In addition, a clear purpose facilitates the evaluation of the completeness of the document.

The stated purpose of the planning document is to...

explain a proposed pilot program intended to sustain hunting interest in youth to New York State Department of Environmental Conservation administrators and New York State sportsmen. The document is a work plan for conducting the pilot program. Lastly, the document

addresses concerns and needs that need to be considered to conduct the pilot program (NYSDEC 1990:2).

Thus, the document is intended to be both an explanatory tool as well as a work plan for operationalizing the pilot program.

(Note: a heading titled "The Purpose of this Document" appears on page 7 of the document (NYSDEC 1990), but no text accompanies it. This heading should either be eliminated or appropriate text should accompany it.)

Several key components are needed if the document is to be used as an explanatory tool. As an explanatory tool, the document should contain an adequate justification for a pilot program including a description of the impetus for it, a description of the underlying theoretical foundation and empirical support on which the pilot program is to be based, a clear statement of the goal of the pilot, and at least a general overview of how the it will be operationalized. All of these components are necessary to make it an adequate explanatory tool, and the components must have adequate detail. These components are discussed in several of the questions examined below.

Several key components also are necessary for the document to be an adequate work plan. Important components include a time line, a description of the roles of the various groups and individuals involved, and a level of detail that allows those persons involved to refer to the document for day-to-day operation of the pilot program. All components are important, but especially the level of detail.

If the necessary level of detail does not exist, the risk is taken of having the participants stray from the theoretical foundation on which the pilot program is to be based. If that happens, the opportunity for success is lessened, and it becomes difficult to evaluate why the program either failed or succeeded. Level of detail and other components necessary for an adequate work plan are discussed in the questions that follow.

Decision outcome: A clear statement of purpose for the planning document is made, but all of the components necessary to meet the definition of the purpose do not seem to be present.

2. Is there sufficient background presented for the reader to know why a program is needed?

Presentation of background information is necessary so DEC and NYSCC decision makers can determine whether they want their organizations to support the pilot program and to what level. Such information also will help them determine whether their support of the pilot program conforms to their policy.

Background information is presented in the executive summary of the planning document (NYSDEC 1990:2), but not in the main body of the document. The information indicates that hunting participation (i.e., sale of licenses) and enrollment in hunter education courses has been declining in New York. Two consequences of this decline are presented. However, no mention is made of reasons for this decline. Mention is made that apprenticeship experiences and social support encourage progression in the hunting-adoption process, but the relationship

between progression in the hunting-adoption process and continued participation in hunting is not discussed.

Decision outcome: Additional background and support for a pilot program is warranted.

3. Is this DEC's program or is it NYSCC's program?

One indication of whether this is DEC's or NYSCC's pilot program is to examine the impetus for the program, who has developed it, and who will receive benefits from it. The main impetus for the program seems to be DEC's concern that (1) nonparticipation in hunting limits the number of people enjoying wildlife and (2) the decline in license sales has the potential to limit wildlife management actions (NYSDEC 1990:2). No mention is made of impetus from NYSCC except for one statement in the section titled "overview of procedures" in the planning document (NYSDEC 1990:6).

All preparation of the program design to date has been accomplished by a DEC task force with HDRU providing theoretical and empirical evidence for a conceptual model on which to base a program and providing evaluation of the program. In this way, DEC is guiding development of the major elements of the program design to ensure that the pilot program has the greatest opportunity to succeed. However, NYSCC involvement will not commence until the major planning for the program has been completed.

The greatest (implied) direct benefits from the pilot program will be to youthful hunters who otherwise would not continue to hunt, and thus would not fully enjoy the wildlife resources of the state without participation in the pilot program. In addition, DEC will benefit through maintained or increased license sales, and thus will be able to maintain or improve current levels of services, recreational benefits, and management of wildlife populations. Benefits to NYSCC are not stated explicitly.

Decision outcome: This is DEC's program.

4. Does the planning document adequately indicate the roles of DEC, NYSCC, and HDRU?

Explicitly stated roles are necessary because of the cooperative nature of the pilot program. Successful operationalization of the pilot program depends on all of the cooperating organizations and individuals knowing what is expected of them. Without stated roles, delays may occur in some aspects in the program, or some aspects may be omitted inadvertently because 1 organization may erroneously expect another organization to conduct an activity.

The stated role of DEC is to provide support for the pilot program in the form of staff time (e.g., Hunting Retention Specialist, Region 3 sportsmen's education coordinator, others), and financial support for salaries, supplies, and materials (NYSDEC 1990:11). In addition, the Hunting Retention Specialist employed by DEC, with guidance from the Region 3 Sportsmen's Education Coordinator, will be responsible for the day-to-day

coordination and facilitation of the pilot program. In many cases, this will involve close coordination with NYSCC and HDRU.

The overall role of NYSCC is not explicitly stated in any section of the planning document. However, the document indicates "sportsmen should have a lead role in implementing the pilot program" (NYSDEC 1990:11). Additional definition of NYSCC's role is warranted to prevent potential redundancy with the activities conducted by DEC's Hunting Retention Specialist.

The stated role of HDRU is to provide consultation and evaluation services for the pilot program (NYSDEC 1990:11). In addition, HDRU is to assist in several aspects of the operationalization which are discussed below under question 10. These aspects will involve close coordination between the Region 3 Sportsmen's Education Coordinator and the Hunting Retention Specialist.

Decision outcome: The roles of DEC and HDRU are defined in the planning document, but the role of NYSCC is not explicitly stated. In addition, use of the document as both an explanatory tool and a work plan could be strengthened if the expected roles of the 3 groups were stated in a section headed "Roles of Supporting Organizations." Also helpful would be to have identified roles associated with a time line.

5. Is the title appropriate given the purpose of the planning document?

The title of the planning document is technically correct. The title is "Sustaining youth hunting interest through

apprenticeship and/or social support." This indicates that youth hunting interest will be sustained. That is, the pilot program will target persons who already have an interest in hunting. Their hunting interest will be sustained through apprenticeship and social support, which is technically correct, but which may be difficult to understand for persons who were not associated with the development of the pilot program.

The purpose of the planning document is to be both an explanatory tool for DEC administrators and NYSCC members and a work plan for the implementers of the pilot program. Many other persons undoubtedly will have access to the document. For this reason, the title will be most meaningful if it is easily understood and if it cannot be misunderstood.

Some readers of the planning document likely will not be familiar with the terms "apprenticeship" and "social support." Thus, they may not understand the purpose and approach of the pilot program. In addition, some readers may misunderstand those terms and assume that the pilot program will do something it is not intended to do. For example, "apprenticeship" and "social support" might be construed by some readers to mean that youth will be converted into hunters, rather than youth with an established interest in hunting being supported in their interest.

Perhaps the title could be improved to minimize misunderstanding, thereby enhancing the acceptability of the pilot program not only by DEC and NYSCC, but also by others who read the planning document. In addition, the persons

participating in the pilot program would benefit from a more intuitively meaningful title.

Decision outcome: The title of the planning document (and thus the pilot program) is technically correct, but not entirely appropriate. A more intuitively understandable title is warranted and should improve the opportunity to have the pilot program accepted and supported.

6. Is it clear how the decision makers will decide whether to operationalize the pilot program? (In other words, is it explicit about how many apprentices and master hunters must sign up for the pilot program to get off the ground?)

Because the number of youth who meet the qualifications for participation in the pilot program will not be known with certainty until the pilot program is initiated, and because the number of individuals who volunteer to be master hunters will not be known until recruitment efforts are completed, it is important to have explicit criteria established ahead of time about whether to initiate or to continue (if some master hunters drop out) the pilot program. Without specific criteria, valuable resources (e.g., time and money) may be wasted if the pilot program is initiated or continued without enough participants to obtain the desired outcome.

A decision criterion exists for the number of apprentices needed to operationalize the pilot program, but not for the number of master hunters necessary. "At this time, the task force recommends that the pilot program be initiated regardless of the number of youth who agree to participate" (NYSDEC 1990:7).

The planning document indicates "about 50-100 master hunters will be required" (NYSDEC 1990:14), but no indication is given about whether the pilot program will be conducted if fewer than 50 master hunters are recruited. A clear statement is needed about the minimum number of master hunters necessary to implement the pilot program.

Decision outcome: It is not clear how the decision makers will decide whether to implement the pilot program.

7. Is it clear how the decision makers will decide whether to implement the plan on a statewide basis?

Because of the preliminary nature of the pilot program, criteria are needed to determine whether the program should be expanded statewide. Such criteria would help decision makers determine the expected value of the program in other areas of the state. Without criteria agreed upon prior to the implementation of the pilot program, decision makers would be at a disadvantage in objectively assessing whether the program should be expanded to areas outside of Region 3.

Six criteria have been developed by the task force to aid decision makers in deciding whether to implement the plan on a statewide basis (Table C-1). "The sum of the 6 must be positive for the program to be expanded statewide" (NYSDEC 1990:9).

Decision outcome: The method is clearly stated through which a decision can be made about whether to expand the plan statewide.

Table C-1. Criteria* for deciding whether the pilot program to provide new youthful hunters with apprenticeship and/or social support should be expanded statewide.

- (1) An increase in the proportion of participants who purchase a hunting license from nearly 0% to 50% during the 2 years following the program.
- (2) Achievement of a "continuation" stage of hunting adoption by at least 25% of the participants 2 years after completion of the pilot program.
- (3) An increase in the mean days of hunting by the apprenticeship and full support treatment groups, as an additive improvement over a control.
- (4) The man hours and dollars spent implementing the pilot program will be determined for the Department of Environmental Conservation, collaboration organizations, and individual master hunters. The man hours and dollars spent by DEC will be compare to the license revenue generated by the program participants, as 1 of several decision criteria. It is recognized that it may take several years to show a positive cost-benefit ratio.
- (5) The extent that volunteers who are selected to provide apprenticeship but actually provide a level of social support will be measured by examining log books each master hunter will keep. The costs associated with training master hunters to provide apprenticeship vs. apprenticeship and social support will be determined and weighed against the degree to which social support networks develop without special training.
- (6) Willingness of 75% of the master hunters and the sponsoring organizations to repeat involvement in a similar program.

*From NYSDEC 1990:9-10.

8. Are the objectives clearly spelled out?

The objectives have been discussed above under evaluation question number 3 in Appendix B and will not be discussed further here.

Decision outcome: See the discussion of the objectives under question number 3 in Appendix B.

9. Are the expected "payoffs" of the pilot program clear? (In other words, does the document adequately describe what results are expected from the pilot program?)

A description of the expected "payoffs" or outcome of the pilot program is a useful and necessary component of the planning document. Such a description would help DEC administrators and NYSCC members decide whether they would want to participate in the pilot program. Also, the expected outcome would provide criteria necessary to conduct the program outcome evaluation to be conducted by HDRU (Enck et al. 1988).

The expected "payoffs" of the pilot program are not explicitly stated in the planning document. The planning document describes a need for a program to provide new youthful hunters with apprenticeship and/or social support (NYSDEC 1990:2-3, 7), and it describes how a decision will be made about whether to operationalize the pilot program on a statewide basis (NYSDEC 1990:9-10). However, no explicit statement is made of the expected "payoffs" or outcome of the pilot program that would help DEC and NYSCC decide whether they want to support the pilot program and support its expansion statewide.

Decision outcome: The expected "payoffs" are not clear.

10. Does the document adequately indicate who (agency/group or individual) will do what specific duties relative to the implementation?

A description of specific duties to be conducted by groups or individuals involves a level of detail above that indicated by their general roles. The general roles of DEC, NYSCC, and HDRU are discussed above in question 4. The specific duties related to the roles are varied and numerous. The Hunting Retention Specialist will conduct most of the pilot program implementation duties for DEC (Table C-2). Specific duties to be conducted by NYSCC are described more completely than NYSCC's role in the pilot program, and these duties are described in various sections throughout the planning document (Table C-3). Similarly, the duties to be conducted by HDRU are described throughout the planning document (Table C-4).

Decision outcome: Duties to be conducted by DEC's Hunting Retention Specialist, NYSCC, and HDRU are explicitly stated throughout the planning document.

Table C-2. Activities to be conducted by a Hunting Retention Specialist, to be hired by DEC, during operationalization of a pilot program to provide new youthful hunters with apprenticeship and/or social support for hunting.

<u>Activity to be conducted</u>	<u>Page number of reference in the planning document</u>
Recruitment of potential master hunters	13
Final selection of master hunters	14
Inviting master hunters to participate	15
Making arrangements for and facilitating the master hunter training workshops	15
Assisting with selection of potential apprentices and inviting them to participate	17
Developing an informational packet for the apprentices and their parents/guardians	18
Coordinating with NYSCC to locate a facility and work out the logistical details for the get-acquainted meeting for master hunters and apprentices	20, 22
Pairing master hunters with apprentices at the get-acquainted meeting	19
Obtaining information about hunting-related events and facilities in Region 3, and communicating that information to the master hunters	24
Assisting the HDRU with the program implementation stage of the evaluation	24

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Coordinating with NYSCC to locate a facility and work out the logistical details for the get-acquainted meeting for master hunters and apprentices	20, 22
Pairing master hunters with apprentices at the get-acquainted meeting	19
Obtaining information about hunting-related events and facilities in Region 3, and communicating that information to the master hunters	24
Assisting the HDRU with the program implementation stage of the evaluation	24

Table C-3.

Activities to be conducted by the New York Conservation Council during the operationalization of a pilot program to provide new youthful hunters with apprenticeship and/or social support for hunting.

<u>Activity to be conducted</u>	<u>Page number of reference in the planning document</u>
Guide the methodology and assist with recruitment of potential master hunters	13
Assist with identification of facilities for the master hunter training workshops	15
Assist with identification of facilities and facilitation of the get-acquainted meetings for master hunters and apprentices	20, 22
Coordinate with DEC to provide a formal ending (e.g., recognition dinner) for the mentoring relationship that is expected to develop between the master hunters and apprentices	24

Table C-4. Activities to be conducted by the Human Dimensions Research Unit at Cornell University before, during, and after the operationalization of a pilot program to provide new youthful hunters with apprenticeship and/or social support for hunting.

<u>Activity to be conducted</u>	<u>Page number of reference in the planning document</u>
Provide the theoretical basis and empirical evidence for the important elements of the pilot program	11
Meet with DEC and NYSCC members to gain the full support of NYSCC for the pilot program	12
Assist Region 3 Sportsmen's Education Coordinator analyze the residence distribution of 1988 Hunter Education Course participants	14-15
Assist in the selection of potential apprentices through development and implementation of a screening instrument	16-17
Determine in which treatment group (i.e., apprenticeship or apprenticeship and social support) potential apprentices should be placed	17
Assist in the development of prototype log books for master hunters and apprentices	23
Conduct a formal evaluation of the pilot program	7, 24-25

11. Does the document adequately describe when things are going to happen and in what order? (How well is the time table spelled out?)

An adequate indication of what the major activities are, the order in which they are to occur, and when they are to occur is needed for a successful operationalization of the pilot program. This information is necessary so supporting groups can determine when resources will be required of them. Individual participants need this information to prepare for their roles. A timetable and accompanying description also are necessary to conduct an adequate program implementation evaluation.

A general timetable appears on pages 10-11 of the planning document (NYSDEC 1990:10-11). The timetable adequately describes when all the major activities are expected to occur relative to the establishment, implementation, and evaluation of the pilot program. However, a major concern is that several of the major activities listed in the timetable have not occurred on time. If the establishment, implementation, and evaluation of the pilot program does not adhere to the established timetable, the opportunity to operationalize a successful pilot program may be lost.

Decision outcome: The timetable appearing in the document adequately describes when specific activities will occur and in what order.

12. Is the level of writing appropriate given the intended audience?

As described above in other sections, the document is to be an explanatory tool for DEC and NYSCC decision makers and a work plan for those persons implementing the pilot program. It is conceivable that many other persons will have access to the planning document. Therefore, it is likely that the various persons reading the document will have a wide range of education and reading skills. For this reason, the most effective document would be one in which the level of writing was consistent throughout, concise, and appropriate for the expected audience with the lowest level of reading skill.

Various sections of the planning document were written by different authors (known from first-hand observation), and the authors used different writing styles and writing levels (Table C-5). These differences make reading the planning document difficult and may lead to misunderstanding or confusion. Of special concern is that some of the terminology used may not be understood by program volunteers who represent a large percentage of the potential readers of the document.

Decision outcome: The level of writing used in the planning document is not entirely appropriate, nor is it consistent throughout. An intensive editing of the document is warranted to enhance its utility.

Table C-5.

Examples of discrepancies in the style and level of writing in the planning document describing a pilot program to provide youthful new hunters with apprenticeship and/or social support.

Examples of different writing styles

<u>Phrase</u>	<u>Page</u>	<u>Paragraph</u>	<u>Sentence</u>
"As completed applications are received..."	14	1	1
"...applications are expected to come in throughout..."	15	3	1

Examples of phrases that may be misunderstood by most readers

<u>Phrase</u>	<u>Page</u>	<u>Paragraph</u>	<u>Sentence</u>
"...collaborative pilot approach..."	9	5	1
"...mechanism for inviting the candidates..."	17	3	4
"...development of a sense of rapport..."	21	4	1

QUESTIONNAIRE

In what community youth activities do you participate?

What shooting or sportsmen's groups do you belong to? _____

How long have you been hunting? _____

What game do you hunt? List species and approximate number of outlings/year for each species.

_____	_____	_____
_____	_____	_____
_____	_____	_____

What other recreational activities do you pursue? _____

How many times a year do you target shoot?

_____	_____	_____	_____	_____
never	1 or 2	3 - 5	5 - 10	greater than 10

How many times a year do you shoot at clay targets?

_____	_____	_____	_____	_____
never	1 or 2	3 - 5	5 - 10	greater than 10

How frequently through a year would you like to include a young hunter in your outings?

0 times/year

Hunting _____
Shooting _____
Sportsmens Activites _____
Other recreational _____
activities _____

Types _____
Types _____

Questionnaire (continued)

Optional Information

Some of our young hunters may be non-english speaking. Do you speak a language other than english and could help a non-english speaking hunter? _____

Some of our young hunters may need special considerations because of disabilities. Do you have any special skills-training to assist young disabled hunters? _____

Do you have any concerns about being a master hunter for a youth other than your gender? _____